AR TARGET SHEET

The following document was too large to scan as one unit; therefore, it has been broken down into sections.

DOCUMENT#	BNFL-5193-RCRA-01
TITLE	River Protection Project Waste Treatment Plant Dangerous Waste Permit Application (5 volumes)
EDMC#	0053076
SECTION	8 of 11

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Organic Compounds									
Aromatic Halogenated Hydrocarbons									
4-Chloro-3-methylphenol	59-50-7	3.10		3.16E-05		3.16E-05	e		3.16E-05
2,3,4,6-Tetrachlorophenol	58-90-2	4.42		6.61E-04		6.61E-04	e		6.61E-04
Aromatic Nonhalogenated Hydrocarbons									
2-Nitrotoluene	88-72-2	2.30		5.01E-06		5.01E-06	e		5.01E-06
4-Nitrobiphenyl	92-93-3	3.77		1.48E-04		1.48E-04	e		1.48E-04
Benzaldehyde	100-52-7	1.48		7.54E-07		7.54E-07	e		7.54E-07
Benzene	71-43-2	-4.99		2.56E-13		2.56E-13	e		2.56E-13
Benzyl alcohol	100-51-6	1.10		3.16E-07		3.16E-07	e		3.16E-07
Ethyl benzene	100-41-4	3.12		3.34E-05		3.34E-05	e		3.34E-05
m-Xylene	108-38-3	3.20		3.99E-05		3.99E-05	e		3.99E-05
o-Xylene	95-47-6	3.13		3.39E-05		3.39E-05	e		3.39E-05
p-Xylene	106-42-3	3.17		3.72E-05		3.72E-05	e		3.72E-05
Styrene	100-42-5	2.93		2.13E-05		2.13E-05	e		2.13E-05
Toluene	108-88-3	2.67		1.17E-05		1.17E-05	e		1.17E-05
Non-aromatic Nonhalogenated Hydrocarbons									
1,2-Epoxybutane	106-88-7	1.44		6.94E-07		6.94E-07	e		6.94E-07
1,3-Butadiene	106-99-0	1.90		2.00E-06		2.00E-06	e		2.00E-06
1,4-Dioxane	123-91-1	-0.27	1.36E-08			1.36E-08	e		1.36E-08
1-Methylpropyl alcohol	78-92-2	0.61		1.02E-07		1.02E-07	e		1.02E-07
1-Nitropropane	108-03-2	0.87		1.86E-07		1.86E-07	e		1.86E-07
2,2,4-Trimethylpentane	540-84-1	5.02		2.63E-03		2.63E-03	e		2.63E-03
2-Butanone	78-93-3	0.28		4.80E-08		4.80E-08	e		4.80E-08
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data		1.00E+01		Default	1.00E+01
2-Ethoxyethanol	110-80-5	-0.10		2.00E-08		2.00E-08	e		2.00E-08
2-Heptanone	110-43-0	1.98		2.40E-06		2.40E-06	e		2.40E-06
2-Hexanone	591-78-6	1.38		6.03E-07		6.03E-07	e		6.03E-07
2-Methoxyethanol	109-86-4	0.25		4.49E-08		4.49E-08	e		4.49E-08

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
2-Methyl-2-propanol	75-65-0	0.35		5.62E-08		5.62E-08	e		5.62E-08
2-Methyl-2-propenenitrile	126-98-7	0.54		8.72E-08		8.72E-08	e		8.72E-08
2-Methylaziridine	75-55-8	-0.60		6.27E-09		6.27E-09	e		6.27E-09
2-Methylpropyl alcohol	78-83-1	0.76		1.45E-07		1.45E-07	e		1.45E-07
2-Pentanone	107-87-9	0.91		2.04E-07		2.04E-07	e		2.04E-07
2-Propanone (Acetone)	67-64-1	-0.22	1.51E-08			1.51E-08	e		1.51E-08
2-Propene-1-ol	107-18-6	0.17		3.72E-08		3.72E-08	e		3.72E-08
2-Propyl alcohol	67-63-0	0.05		2.82E-08		2.82E-08	e		2.82E-08
3-Heptanone	106-35-4	No data		No data		1.00E+01		Default	1.00E+01
3-Methyl-1-butanol	123-51-3	No data		No data		1.00E+01		Default	1.00E+01
3-Methyl-2-butanone	563-80-4	No data		No data		1.00E+01		Default	1.00E+01
3-Pentanone	96-22-0	0.99		2.45E-07		2.45E-07	e		2.45E-07
4-Heptanone	123-19-3	No data		No data		1.00E+01		Default	1.00E+01
4-Methyl-2-pentanone	108-10-1	1.19		3.89E-07		3.89E-07	e		3.89E-07
4-Methyl-3-penten-2-one	141-79-7	No data		No data		1.00E+01		Default	1.00E+01
5-Methyl-2-hexanone	110-12-3	No data		No data		1.00E+01		Default	1.00E+01
Acetaldehyde	75-07-0	-0.22		1.51E-08		1.51E-08	e		1.51E-08
Acetamide	60-35-5	-1.26		1.38E-09		1.38E-09	e		1.38E-09
Acetic acid	64-19-7	-0.17		1.70E-08		1.70E-08	e		1.70E-08
Acetic acid ethyl ester	141-78-6	0.73		1.35E-07		1.35E-07	e		1.35E-07
Acetic acid n-butyl ester	123-86-4	1.73		1.35E-06		1.35E-06	e		1.35E-06
Acetonitrile	75-05-8	-0.34		1.15E-08		1.15E-08	e		1.15E-08
Acrolein	107-02-8	-0.01		2.46E-08		2.46E-08	e		2.46E-08
Acrylonitrile	107-13-1	0.25	4.46E-08			4.47E-08	e		4.46E-08
Bis(isopropyl)ether	108-20-3	No data		No data		1.00E+01		Default	1.00E+01
Butane	106-97-8	2.89		1.95E-05		1.95E-05	e		1.95E-05
Carbon disulfide	75-15-0	2.00		2.51E-06		2.51E-06	e		2.51E-06
Cyanogen	460-19-5	0.81		1.61E-07		1.61E-07	e		1.61E-07
Cyclohexane	110-82-7	3.44		6.92E-05		6.92E-05	e		6.92E-05

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Cyclohexanone	108-94-1	0.81		1.62E-07		1.62E-07	e		1.62E-07
Cyclohexene	110-83-8	2.86		1.82E-05		1.82E-05	e		1.82E-05
Cyclopentane	287-92-3	3.00		2.51E-05		2.51E-05	e		2.51E-05
Ethyl alcohol	64-17-5	0.31		5.13E-08		5.13E-08	e		5.13E-08
Ethyl ether	60-29-7	0.89		1.95E-07		1.95E-07	e		1.95E-07
Ethyl methacrylate	97-63-2	1.59		9.77E-07		9.77E-07	e		9.77E-07
Formaldehyde	50-00-0	0.34	5.54E-08			5.53E-08	e		5.54E-08
Formamide	75-12-7	-1.51		7.76E-10		7.76E-10	e		7.76E-10
Formic acid	64-18-6	-0.54		7.28E-09		7.28E-09	e		7.28E-09
Formic acid, methyl ester	107-31-3	-0.26		1.37E-08		1.37E-08	e		1.37E-08
Glycidylaldehyde	765-34-4	-0.73		4.68E-09		4.68E-09	e		4.68E-09
Methyl acetate	79-20-9	0.18		3.80E-08		3.80E-08	e		3.80E-08
Methyl alcohol	67-56-1	-0.71		4.90E-09		4.90E-09	e		4.90E-09
Methyl isocyanate	624-83-9	No data		No data		NA		Reacts with water	NA
Methyl methacrylate	80-62-6	0.79		1.55E-07		1.55E-07	e		1.55E-07
Methyl tert-butyl ether	1634-04-4	0.94		2.19E-07		2.19E-07	e		2.19E-07
Methylacetylene	74-99-7	0.94		2.19E-07		2.19E-07	e		2.19E-07
Methylcyclohexane	108-87-2	4.10		3.16E-04		3.16E-04	e		3.16E-04
N,N-Dimethylacetamide	127-19-5	No data		No data		1.00E+01		Default	1.00E+01
n-Butyl alcohol	71-36-3	0.88		1.91E-07		1.91E-07	e		1.91E-07
n-Heptane	142-82-5	4.66		1.15E-03		1.15E-03	e		1.15E-03
n-Hexane	110-54-3	4.11		3.24E-04		3.24E-04	e		3.24E-04
Nitromethane	75-52-5	-0.35		1.12E-08		1.12E-08	e		1.12E-08
n-Nonane	111-84-2	5.65		1.12E-02		1.12E-02	e		1.12E-02
n-Octane	111-65-9	4.00		2.51E-04		2.51E-04	e		2.51E-04
n-Pentane	109-66-0	3.21		4.07E-05		4.07E-05	e		4.07E-05
n-Propionaldehyde	123-38-6	0.59		9.77E-08		9.77E-08	e		9.77E-08
n-Propyl alcohol	71-23-8	0.25		4.47E-08		4.47E-08	e		4.47E-08

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
n-Valeraldehyde	110-62-3	No data		No data		1.00E+01		Default	1.00E+01
Oxirane	75-21-8	-0.30		1.26E-08		1.26E-08	e		1.26E-08
p-Cymene	99-87-6	4.10		3.16E-04		3.16E-04	e		3.16E-04
Phosgene	75-44-5	No data		No data		1.00E+01		Default	1.00E+01
Propargyl alcohol	107-19-7	0.26		4.57E-08		4.57E-08	e		4.57E-08
Propionic acid	79-09-4	0.33		5.37E-08		5.37E-08	e		5.37E-08
Propionitrile	107-12-0	0.16		3.63E-08		3.63E-08	e		3.63E-08
Propylene gylcol monomethyl ether	107-98-2	-0.18		1.66E-08		1.66E-08	e		1.66E-08
p-tert-Butyltoluene	98-51-1	No data		No data		1.00E+01		Default	1.00E+01
Triethylamine	121-44-8	0.16		3.63E-08		3.63E-08	e		3.63E-08
Trimethylamine	75-50-3	0.16		3.63E-08		3.63E-08	e		3.63E-08
Vinyl acetate	108-05-4	0.70		1.26E-07		1.26E-07	e		1.26E-07
Non-aromatic Halogenated Hydrocarbons									
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data		1.00E+01		Default	1.00E+01
1,1,1,2-Tetrachloroethane	630-20-6	2.63		1.07E-05		1.07E-05	e		1.07E-05
1,1,1-Trichloroethane	71-55-6	2.42		6.63E-06		6.63E-06	e		1.00E+01
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	3.73		1.35E-04		1.35E-04	e		1.35E-04
1,1,2,2-Tetrachloroethane	79-34-5	4.64		1.11E-03		1.11E-03	e		1.11E-03
1,1,2,2-Tetrachloroethene	127-18-4	2.55		8.82E-06		8.82E-06	e		1.00E+01
1,1,2-Trichloroethane	79-00-5	2.10		3.14E-06		3.14E-06	e		3.14E-06
1,1,2-Trichloroethylene	79-01-6	2.43		6.81E-06		6.81E-06	e		1.00E+01
1,1-Dichloroethane	75-34-3	1.79		1.56E-06		1.56E-06	e		1.56E-06
1,1-Dichloroethene	75-35-4	2.12		3.32E-06		3.32E-06	e		3.32E-06
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	3.16		3.63E-05		3.63E-05	e		3.63E-05
1,2,3-Trichloropropane	96-18-4	2.25		4.47E-06		4.47E-06	e		4.47E-06
1,2-Dibromo-3-chloropropane	96-12-8	2.34		5.50E-06		5.50E-06	e		5.50E-06
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	2.82		1.66E-05		1.66E-05	e		1.66E-05
1,2-Dichloroethane	107-06-2	1.46		7.28E-07		7.28E-07	e		7.28E-07
1,2-Dichloroethylene	540-59-0	0.48		7.59E-08		7.59E-08	e		7.59E-08

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
1,2-Dichloropropane	78-87-5	2.25		4.47E-06		4.47E-06	e		4.47E-06
1,3-Dichloropropene	542-75-6	1.75		1.41E-06		1.41E-06	e		1.41E-06
1,4-Dichloro-2-butene	764-41-0	0.87		1.87E-07		1.87E-07	e		1.87E-07
1-Chloroethene	75-01-4	1.15		3.52E-07		3.52E-07	e		3.52E-07
2,2-Dichloropropionic acid	75-99-0	0.78		1.51E-07		1.51E-07	e		1.51E-07
2-Chloropropane	75-29-6	1.90		2.00E-06		2.00E-06	e		2.00E-06
3-Chloropropene (allyl chloride)	107-05-1	0.95		2.26E-07		2.26E-07	e		2.26E-07
Bromochloromethane	74-97-5	1.41		6.46E-07		6.46E-07	e		6.46E-07
Bromodichloromethane	75-27-4	2.03		2.66E-06		2.66E-06	e		2.66E-06
Bromoethene	593-60-2	1.07		2.93E-07		2.93E-07	e		2.93E-07
Bromoform	75-25-2	2.35		5.63E-06		5.63E-06	e		5.63E-06
Bromomethane	74-83-9	1.11		3.27E-07		3.27E-07	e		3.27E-07
Carbon tetrachloride	56-23-5	2.72		1.31E-05		1.31E-05	e		1.31E-05
Chlorodibromomethane	124-48-1	2.18		3.77E-06		3.77E-06	e		3.77E-06
Chlorodifluoromethane	75-45-6	1.08		3.01E-07		3.01E-07	e		3.01E-07
Chloroethane	75-00-3	3.10		3.16E-05		3.16E-05	e		3.16E-05
Chloroform	67-66-3	1.95	2.24E-06			2.24E-06	e		2.24E-06
Chloromethane	74-87-3	0.90		2.01E-07		2.01E-07	e		2.01E-07
Chloropentafluoroethane	76-15-3	No data		No data		1.00E+01		Default	1.00E+01
cis-1,2-Dichloroethene	156-59-2	1.98		2.41E-06		2.41E-06	e		2.41E-06
cis-1,3-Dichloropropene	10061-01-5	No data		No data		1.00E+01		Default	1.00E+01
Cyanogen bromide	506-68-3	No data		No data		1.00E+01		Default	1.00E+01
Cyanogen chloride	506-77-4	0.20		3.98E-08		3.98E-08	e		3.98E-08
Dichlorodifluoromethane	75-71-8	2.16		3.62E-06		3.62E-06	e		3.62E-06
Dichlorofluoromethane	75-43-4	No data		No data		1.00E+01		Default	1.00E+01
Dichloromethane	75-09-2	1.26		4.52E-07		4.52E-07	e		4.52E-07
Difluorodibromomethane	75-61-6	No data		No data		1.00E+01		Default	1.00E+01
Hexafluoroacetone	684-16-2	No data		No data		1.00E+01		Default	1.00E+01
Iodomethane	74-88-4	1.69		1.23E-06		1.23E-06	e		1.23E-06

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Methylene bromide	74-95-3	1.62		1.05E-06		1.05E-06	e		1.05E-06
Pentachloroethane	76-01-7	3.05		2.82E-05		2.82E-05	e		2.82E-05
trans-1,2-Dichloroethene	156-60-5	1.98		2.41E-06		2.41E-06	e		2.41E-06
trans-1,3-Dichloropropene	10061-02-6	2.06		2.88E-06		2.88E-06	e		2.88E-06
Trichloroacetic acid	76-03-9	1.33		5.37E-07		5.37E-07	e		5.37E-07
Trichlorofluoroethane	27154-33-2	No data		No data		1.00E+01		Default	1.00E+01
Trichlorofluoromethane	75-69-4	2.53		8.54E-06		8.54E-06	e		8.54E-06
Trifluorobromomethane	75-63-8	1.86		1.82E-06		1.82E-06	e		1.82E-06
Dioxin and Furan Compounds									
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	8.20	2.77E-03			3.97E+00	e		2.77E-03
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	7.92	5.99E-04			2.09E+00	e		5.99E-04
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	7.92	2.12E-02			2.09E+00	e		2.12E-02
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	7.79	1.69E-02			1.55E+00	e		1.69E-02
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	7.25	4.12E-03			4.47E-01	e		4.12E-03
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	7.25	6.52E-03			4.47E-01	e		6.52E-03
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	7.25	1.04E-02			4.47E-01	e		1.04E-02
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	7.25	7.60E-03			4.47E-01	e		7.60E-03
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	7.25	3.42E-03			4.47E-01	e		3.42E-02
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	6.64	4.98E-02			1.10E-01	e		4.98E-02
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6.79	1.19E-02			1.55E-01	e		1.19E-02
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	7.25	3.64E-02			4.47E-01	e		3.64E-02
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	6.92	8.69E-02			2.09E-01	e		8.69E-02
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	6.64	5.43E-02			1.10E-01	e		5.43E-02
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	6.53	4.34E-02			8.52E-02	e		4.34E-02
Dibenzofuran	132-64-9	4.33		5.37E-04		5.37E-04	e		5.37E-04
Octachlorodibenzo(p)dioxin	3268-87-9	8.20	6.52E-04			3.98E+00	e		6.52E-04
Octachlorodibenzofuran	39001-02-0	8.78	8.69E-04			1.52E+01	e		8.70E-04
PCBs									
Polychlorinated biphenyls (PCBs)[f]	1336-36-3	7.31	4.04E-02			5.10E-01	e		4.04E-02

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	7.08		3.02E-01		3.02E-01	e		3.02E-01
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	7.12		3.31E-01		3.31E-01	e		3.31E-01
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data		1.00E+01		Default	1.00E+01
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data		1.00E+01		Default	1.00E+01
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data		1.00E+01		Default	1.00E+01
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data		1.00E+01		Default	1.00E+01
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data		1.00E+01		Default	1.00E+01
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data		1.00E+01		Default	1.00E+01
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data		1.00E+01		Default	1.00E+01
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	7.12		3.31E-01		3.31E-01	e		3.31E-01
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	7.41		6.43E-01		6.43E-01	e		6.43E-01
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data		1.00E+01		Default	1.00E+01
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data		1.00E+01		Default	1.00E+01
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data		1.00E+01		Default	1.00E+01
Phthalates									
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	5.20	4.04E-03			4.02E-03	e		4.04E-03
Butylbenzyl phthalate	85-68-7	4.41		6.51E-04		6.51E-04	e		6.51E-04
Dibutyl phthalate	84-74-2	4.72		1.32E-03		1.32E-03	e		1.32E-03
Diethyl phthalate	84-66-2	4.44		6.86E-04		6.86E-04	e		6.86E-04
Dimethylphthalate	131-11-3	1.63		1.08E-06		1.08E-06	e		1.08E-06
n-Dioctyl phthalate	117-84-0	9.33	5.36E+01			5.38E+01	e		5.36E+01
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)									
2-Chloronapthalene	91-58-7	4.07		2.94E-04		2.94E-04	e		2.94E-04
2-Methyl naphthalene	91-57-6	3.86		1.82E-04		1.82E-04	e		1.82E-04
5-Nitroacenaphthene	602-87-9	No data		No data		1.00E+01		Default	1.00E+01
Acenaphthene	83-32-9	3.96		2.32E-04		2.32E-04	e		2.32E-04
Acenaphthylene	208-96-8	4.07		2.95E-04		2.95E-04	e		2.95E-04
Anthracene	120-12-7	4.47		7.41E-04		7.41E-04	e		7.41E-04
Fluorene	86-73-7	4.18		3.80E-04		3.80E-04	e		3.80E-04

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Indene	95-13-6	No data		No data		1.00E+01		Default	1.00E+01
Naphthalene	91-20-3	3.37		5.93E-05		5.93E-05	e		5.93E-05
Phenanthrene	85-01-8	4.55		8.92E-04		8.92E-04	e		8.92E-04
Pyrene	129-00-0	5.00		2.51E-03		2.51E-03	e		2.51E-03
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)									
3-Methylcholanthrene	56-49-5	7.11		3.24E-01		3.24E-01	e		3.24E-01
5-Methylchrysene	3697-24-3	No data		No data		1.00E+01		Default	1.00E+01
Benzo(a)anthracene	56-55-3	5.68	1.20E-02			1.20E-02	e		1.20E-02
Benzo(a)pyrene	50-32-8	6.13	3.38E-02			3.39E-02	e		3.38E-02
Benzo(b)fluoranthene	205-99-2	6.20	4.01E-02			3.99E-02	e		4.01E-02
Benzo(e)pyrene	192-97-2	7.40		6.31E-01		6.31E-01	e		6.31E-01
Benzo(g,h,i)perylene	191-24-2	7.10		3.16E-01		3.16E-01	e		3.16E-01
Benzo(j)fluoranthene	205-82-3	6.44		6.92E-02		6.92E-02	e		6.92E-02
Benzo(k)fluoranthene	207-08-9	6.20	3.97E-02			4.00E-02	e		3.97E-02
Benzo[a,i]pyrene	191-30-0	No data		No data		1.00E+01		Default	1.00E+01
Chrysene	218-01-9	5.74	1.38E-02			1.38E-02	e		1.38E-02
Dibenz(a,h)anthracene	53-70-3	6.55	8.88E-02			8.87E-02	e		8.88E-02
Dibenz[a,h]acridine	226-36-8	No data		No data		1.00E+01		Default	1.00E+01
Dibenz[a,j]acridine	224-42-0	No data		No data		1.00E+01		Default	1.00E+01
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data		1.00E+01		Default	1.00E+01
Dibenzo(a,h)fluoranthene	no cas #	No data		No data		1.00E+01		Default	1.00E+01
Dibenzo[a,e]pyrene	192-65-4	No data		No data		1.00E+01		Default	1.00E+01
Dibenzo[a,h]pyrene	189-64-0	No data		No data		1.00E+01		Default	1.00E+01
Dibenzo[a,i]pyrene	189-55-9	7.29		4.90E-01		4.90E-01	e		4.90E-01
Fluoranthene	206-44-0	5.08		3.04E-03		3.04E-03	e		3.04E-03
Hexachloronaphthalene	1335-87-1	7.59		9.77E-01		9.77E-01	e		9.77E-01
Indeno(1,2,3-cd)pyrene	193-39-5	6.91	2.07E-01			2.06E-01	e		2.07E-01
Octachloronaphthalene	2234-13-1	6.42		6.61E-02		6.61E-02	e		6.61E-02
Pentachloronaphthalene	1321-64-8	No data		No data		1.00E+01		Default	1.00E+01

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Tetrachloronaphthalene	1335-88-2	No data		No data		1.00E+01		Default	1.00E+01
Trichloronaphthalene	1321-65-9	No data		No data		1.00E+01		Default	1.00E+01
Light Substituted Benzene Compounds (MW <200 g/mole)									
1,2,3-Trichlorobenzene	87-61-6	4.05		2.79E-04		2.79E-04	e		2.79E-04
1,2,4-Trichlorobenzene	120-82-1	3.99		2.44E-04		2.44E-04	e		2.44E-04
1,2,4-Trimethyl benzene	95-63-6	3.65		1.12E-04		1.12E-04	e		1.12E-04
1,2-Dichlorobenzene	95-50-1	3.45		7.01E-05		7.01E-05	e		7.01E-05
1,3,5-Trimethyl benzene	108-67-8	3.42		6.61E-05		6.61E-05	e		6.61E-05
1,3-Dichlorobenzene	541-73-1	3.53		8.52E-05		8.52E-05	e		8.52E-05
1,3-Dinitrobenzene	99-65-0	1.49	7.79E-07			7.79E-07	e		7.79E-07
1,4-Dichlorobenzene	106-46-7	3.41		6.48E-05		6.48E-05	e		6.48E-05
1,4-Dinitrobenzene	100-25-4	1.50		7.94E-07		7.94E-07	e		7.94E-07
2,4,5-Trichlorophenol	95-95-4	3.87		1.86E-04		1.86E-04	e		1.86E-04
2,4,6-Trichlorophenol	88-06-2	3.71		1.29E-04		1.29E-04	e		1.29E-04
2,4-Dichlorophenol	120-83-2	3.04		2.74E-05		2.74E-05	e		2.74E-05
2,4-Dimethylphenol	105-67-9	2.36		5.75E-06		5.75E-06	e		5.75E-06
2,4-Dinitrophenol	51-28-5	1.52		8.29E-07		8.29E-07	e		8.29E-07
2,4-Dinitrotoluene	121-14-2	2.00	2.49E-06			2.49E-06	e		2.49E-06
2,6-Dinitrotoluene	606-20-2	1.89	1.93E-06			1.93E-06	e		1.93E-06
2-Chlorophenol	95-57-8	2.16		3.64E-06		3.64E-06	e		3.64E-06
2-Chlorotoluene	95-49-8	3.54		8.64E-05		8.64E-05	e		8.64E-05
2-Nitrophenol	88-75-5	1.79		1.55E-06		1.55E-06	e		1.55E-06
4,6-Dinitro-o-cresol	534-52-1	2.85		1.78E-05		1.78E-05	e		1.78E-05
4-Chlorotoluene	106-43-4	3.33		5.37E-05		5.37E-05	e		5.37E-05
4-Nitrophenol	100-02-7	1.91		2.04E-06		2.04E-06	e		2.04E-06
alpha-Methylstyrene	98-83-9	3.46		7.30E-05		7.30E-05	e		7.30E-05
Aniline	62-53-3	0.98		2.40E-07		2.40E-07	e		2.40E-07
Benzotrichloride	98-07-7	2.92		2.09E-05		2.09E-05	e		2.09E-05
Benzyl chloride	100-44-7	0.36		5.78E-08		5.78E-08	e		5.78E-08

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Bromobenzene	108-86-1	2.99		2.45E-05		2.45E-05	e		2.45E-05
Chlorobenzene	108-90-7	2.79		1.55E-05		1.55E-05	e		1.55E-05
Cumene	98-82-8	3.61		1.03E-04		1.03E-04	e		1.03E-04
m-Cresol	108-39-4	1.96		2.29E-06		2.29E-06	e		2.29E-06
n-Butyl benzene	104-51-8	4.28		4.79E-04		4.79E-04	e		4.79E-04
Nitrobenzene	98-95-3	1.83	1.71E-06			1.71E-06	e		1.71E-06
n-Propyl benzene	103-65-1	3.69		1.23E-04		1.23E-04	e		1.23E-04
o-Cresol	95-48-7	2.02		2.64E-06		2.64E-06	e		2.64E-06
o-Dinitrobenzene	528-29-0	1.60		1.00E-06		1.00E-06	e		1.00E-06
o-Nitroaniline	88-74-4	1.85		1.78E-06		1.78E-06	e		1.78E-06
o-Toluidine	95-53-4	1.34		5.50E-07		5.50E-07	e		5.50E-07
p-Chloroaniline	106-47-8	1.87		1.86E-06		1.86E-06	e		1.86E-06
p-Cresol	106-44-5	1.94		2.19E-06		2.19E-06	e		2.19E-06
Phenol	108-95-2	1.48		7.54E-07		7.54E-07	e		7.54E-07
p-Nitrochlorobenzene	100-00-5	2.39		6.17E-06		6.17E-06	e		6.17E-06
p-Toluidine	106-49-0	1.40		6.31E-07		6.31E-07	e		6.31E-07
sec-Butyl benzene	135-98-8	4.57		9.33E-04		9.33E-04	e		9.33E-04
tert-Butyl benzene	98-06-6	4.11		3.24E-04		3.24E-04	e		3.24E-04
Toluene-2,6-diamine	823-40-5	1.45		7.16E-07		7.16E-07	e		7.16E-07
Trimethyl benzene	25551-13-7	3.40		6.31E-05		6.31E-05	e		6.31E-05
Other Light Semivolatile Compounds (molecular weight <200 g/mole)									
1,1'-Biphenyl	92-52-4	3.90		2.00E-04		2.00E-04	e		2.00E-04
1,1-Dimethylhydrazine	57-14-7	0.60		9.89E-08		9.89E-08	e		9.89E-08
1,2-Dimethylhydrazine	540-73-8	-1.37		1.08E-09		1.08E-09	e		1.08E-09
1,2-Diphenylhydrazine	122-66-7	2.94		2.19E-05		2.19E-05	e		2.19E-05
1,3-Propane sultone	1120-71-4	-0.52		7.53E-09		7.53E-09	e		7.53E-09
2,4-Toluene diisocyante	584-84-9	No data		No data		NA		Decomposes rapidly in water	NA

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
2-Chloroacetophenone	532-27-4	2.59		9.88E-06		9.88E-06	e		9.88E-06
2-Propenoic acid	79-10-7	0.33		5.37E-08		5.37E-08	e		5.37E-08
4,4-Methylenedianiline	101-77-9	3.38		6.02E-05		6.02E-05	e		6.02E-05
Acetophenone	98-86-2	1.64		1.10E-06		1.10E-06	e		1.10E-06
Benzoic acid	65-85-0	1.86		1.82E-06		1.82E-06	e		1.82E-06
bis(2-Chloroethoxy)methane	111-91-1	7.59		9.77E-01		9.77E-01	e		9.77E-01
bis(2-Chloroethyl) ether	111-44-4	1.30		5.02E-07		5.02E-07	e		5.02E-07
Chlorocyclopentadiene	41851-50-7	2.43		6.76E-06		6.76E-06	e		6.76E-06
Cyclohexanol	108-93-0	1.23		4.27E-07		4.27E-07	e		4.27E-07
Dichloroisopropyl ether	108-60-1	2.58		9.55E-06		9.55E-06	e		9.55E-06
Dichloromethyl ether	542-88-1	-0.38		1.05E-08		1.05E-08	e		1.05E-08
Dichloropentadiene	no cas #	No data		No data		1.00E+01		Default	1.00E+01
Dimethyl sulfate	77-78-1	0.32		5.23E-08		5.23E-08	e		5.23E-08
Dimethylaniline	121-69-7	-0.88		3.31E-09		3.31E-09	e		3.31E-09
Di-n-propylnitrosamine	621-64-7	1.38		6.03E-07		6.03E-07	e		6.03E-07
Diphenyl ether	101-84-8	4.21		4.07E-04		4.07E-04	e		4.07E-04
Epichlorohydrin	106-89-8	0.25		4.47E-08		4.47E-08	e		4.47E-08
Ethyl carbamate (urethane)	51-79-6	-0.15		1.78E-08		1.78E-08	e		1.78E-08
Ethyl methanesulfonate	62-50-0	0.05		2.81E-08		2.81E-08	e		2.81E-08
Ethylene dibromide	106-93-4	1.75		1.41E-06		1.41E-06	e		1.41E-06
Ethylene glycol	107-21-1	-0.91		3.06E-09		3.06E-09	e		3.06E-09
Ethylene glycol monobutyl ether	111-76-2	1.55		9.00E-07		9.00E-07	e		9.00E-07
Ethylene glycol monoethyl ether acetate	111-15-9	0.62		1.05E-07		1.05E-07	e		1.05E-07
Ethylene thiourea	96-45-7	-0.64		5.73E-09		5.73E-09	e		5.73E-09
Furfural	98-01-1	0.96		2.29E-07		2.29E-07	e		2.29E-07
Maleic hydrazide	123-33-1	-0.74		4.57E-09		4.57E-09	e		4.57E-09
Malononitrile	109-77-3	0.04		2.75E-08		2.75E-08	e		2.75E-08
Methyl styrene (mixed isomers)	25013-15-4	3.35		5.62E-05		5.62E-05	e		5.62E-05
Methylhydrazine	60-34-4	-1.06		2.19E-09		2.19E-09	e		2.19E-09

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
N,N-Diphenylamine	122-39-4	3.50		7.94E-05		7.94E-05	e		7.94E-05
Nitric acid, propyl ester	627-13-4	No data		No data		1.00E+01		Default	1.00E+01
N-Nitrosodi-n-butylamine	924-16-3	2.41		6.46E-06		6.46E-06	e		6.46E-06
N-Nitrosomorpholine	59-89-2	0.98		2.40E-07		2.40E-07	e		2.40E-07
N-Nitroso-N,N-dimethylamine	62-75-9	-0.47		8.51E-09		8.51E-09	e		8.51E-09
o-Anisidine	90-04-0	1.18		3.80E-07		3.80E-07	e		3.80E-07
Oxalic acid	144-62-7	No data		No data		1.00E+01		Default	1.00E+01
Phthalic anhydride	85-44-9	-0.60		6.28E-09		6.28E-09	e		6.28E-09
p-Phthalic acid	100-21-0	0.82		1.67E-07		1.67E-07	e		1.67E-07
Pyridine	110-86-1	0.67		1.18E-07		1.18E-07	e		1.18E-07
Quinoline	91-22-5	2.03		2.69E-06		2.69E-06	e		2.69E-06
Quinone	106-51-4	0.20		3.98E-08		3.98E-08	e		3.98E-08
Safrole	94-59-7	2.66		1.15E-05		1.15E-05	e		1.15E-05
Tetrahydrofuran	109-99-9	0.45		7.03E-08		7.03E-08	e		7.03E-08
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)									
1,2,4,5-Tetrachlorobenzene	95-94-3	4.64		1.10E-03		1.10E-03	e		1.10E-03
1,3,5-Trinitrobenzene	99-35-4	1.18		3.79E-07		3.79E-07	e		3.79E-07
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	4.17		3.72E-04		3.72E-04	e		3.72E-04
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	-2.70		5.01E-11		5.01E-11	e		5.01E-11
2-sec-Butyl-4,6-dinitrophenol	88-85-7	3.14		3.47E-05		3.47E-05	e		3.47E-05
3,3'-Dimethoxybenzidine	119-90-4	1.81		1.62E-06		1.62E-06	e		1.62E-06
3,3-Dichlorobenzidine	91-94-1	3.58		9.44E-05		9.44E-05	e		9.44E-05
4-Bromophenylphenyl ether	101-55-3	5.00		2.51E-03		2.51E-03	e		2.51E-03
Ammonium perfluorooctanoate	3825-26-1	No data		No data		1.00E+01		Default	1.00E+01
Azobenzene	103-33-3	3.82		1.66E-04		1.66E-04	e		1.66E-04
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data		1.00E+01		Default	1.00E+01
Captan	133-06-2	2.35		5.62E-06		5.62E-06	e		5.62E-06
Chlorobenzilate	510-15-6	4.38		6.03E-04		6.03E-04	e		6.03E-04
Dibutylphosphate	107-66-4	No data		No data		1.00E+01		Default	1.00E+01

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Dimethyl aminoazobenzene	60-11-7	4.58		9.55E-04		9.55E-04	e		9.55E-04
Hexachlorobenzene	118-74-1	5.50	7.98E-03			7.99E-03	e		7.98E-03
Hexachlorobutadiene	87-68-3	4.73	1.35E-03			1.35E-03	e		1.35E-03
Hexachlorocyclopentadiene	77-47-4	5.04	2.03E-03			2.75E-03	e		2.03E-03
Hexachloroethane	67-72-1	3.98		2.43E-04		2.43E-04	e		2.43E-04
Hexachlorophene	70-30-4	7.54	8.73E-01			8.72E-01	e		8.73E-01
Hexamethylene-1,5-diisocyanate	822-06-0	1.27		4.71E-07		4.71E-07	e		4.71E-07
Mirex	2385-85-5	6.89		1.95E-01		1.95E-01	e		1.95E-01
Nitrofen	1836-75-5	5.53		8.51E-03		8.51E-03	e		8.51E-03
Pentachlorobenzene	608-93-5	5.09	3.07E-03			3.06E-03	e		3.07E-03
Pentachloronitrobenzene	82-68-8	4.64	1.10E-03			1.10E-03	e		1.10E-03
Pentachlorophenol	87-86-5	5.08	3.02E-03			3.01E-03	e		3.02E-03
Picric acid	88-89-1	2.03		2.69E-06		2.69E-06	e		2.69E-06
Pronamide	23950-58-5	3.51		8.14E-05		8.14E-05	e		8.14E-05
Strychnine	57-24-9	1.93		2.14E-06		2.14E-06	e		2.14E-06
Terphenyls	26140-60-3	No data		No data		1.00E+01		Default	1.00E+01
Tributyl phosphate	126-73-8	4.00		2.51E-04		2.51E-04	e		2.51E-04
Trifluralin	1582-09-8	5.34		5.50E-03		5.50E-03	e		5.50E-03
Triphenylamine	603-34-9	No data		No data		1.00E+01		Default	1.00E+01
Herbicides and Organochlorinated Pesticides									
2,4,5-T	93-76-5	3.36		5.75E-05		5.75E-05	e		5.75E-05
2,4-D and esters	94-75-7	2.81		1.62E-05		1.62E-05	e		1.62E-05
4,4-DDD	72-54-8	6.20		3.98E-02		3.98E-02	e		3.98E-02
4,4-DDE	72-55-9	6.26	4.53E-02			4.52E-02	e		4.53E-02
4,4-DDT	50-29-3	6.00		2.51E-02		2.51E-02	e		2.51E-02
Aldrin	309-00-2	6.18		3.79E-02		3.79E-02	e		3.79E-02
alpha-BHC	319-84-6	3.80		1.58E-04		1.58E-04	e		1.58E-04
beta-BHC	319-85-7	3.83		1.71E-04		1.71E-04	e		1.71E-04
Chlordane	57-74-9	5.94		2.18E-02		2.18E-02	e		2.18E-02

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Delta-BHC	319-86-8	4.14		3.47E-04		3.47E-04	e		3.47E-04
Dieldrin	60-57-1	5.27		4.67E-03		4.67E-03	e		4.67E-03
Endothall	145-73-3	-0.87		3.39E-09		3.39E-09	e		3.39E-09
Endrin	72-20-8	4.89		1.96E-03		1.96E-03	e		1.96E-03
gamma-BHC (Lindane)	58-89-9	3.72		1.32E-04		1.32E-04	e		1.32E-04
Heptachlor	76-44-8	5.02	2.60E-03			2.61E-03	e		2.60E-03
Isodrin	465-73-6	3.55		8.91E-05		8.91E-05	e		8.91E-05
Methoxychlor	72-43-5	4.53		8.44E-04		8.44E-04	e		8.44E-04
Silvex (2,4,5-TP)	93-72-1	4.07		2.97E-04		2.97E-04	e		2.97E-04
Toxaphene	8001-35-2	5.50		7.94E-03		7.94E-03	e		7.94E-03
Inorganic Chemicals and Compounds									
Metals									
Aluminum	7429-90-5	NA		1.50E-03		1.50E-03	g		1.50E-03
Antimony	7440-36-0	NA	1.00E-03			1.00E-03	g		1.00E-03
Arsenic	7440-38-2	NA	2.00E-03			2.00E-03	g		2.00E-03
Barium	7440-39-3	NA	1.50E-04			1.50E-04	g		1.50E-04
Beryllium	7440-41-7	NA	1.00E-03			1.00E-03	g		1.00E-03
Bismuth	7440-69-9	NA		4.00E-04		4.00E-04	g		4.00E-04
Boron	7440-42-8	NA		8.00E-04		8.00E-04	g		8.00E-04
Cadmium	7440-43-9	NA	1.20E-04			5.50E-04	g		1.20E-04
Calcium	7440-70-2	NA		7.00E-04		7.00E-04	g		7.00E-04
Chromium (and VI)	18540-29-9	NA	5.51E-03			5.50E-03	g		5.51E-03
Cobalt	7440-48-4	NA		2.00E-02		2.00E-02	g		2.00E-02
Copper	7440-50-8	NA		1.00E-02		1.00E-02	g		1.00E-02
Iron	7439-89-6	NA		2.00E-02		2.00E-02	g		2.00E-02
Lead	7439-92-1	NA	3.00E-04			3.00E-04	g		3.00E-04
Lithium	7439-93-2	NA		1.00E-02		1.00E-02	g		1.00E-02
Magnesium	7439-95-4	NA		5.00E-03		5.00E-03	g		5.00E-03
Manganese	7439-96-5	NA		4.00E-04		4.00E-04	g		4.00E-04

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Mercury	7439-97-6	NA	5.21E-03			2.50E-01	g		5.21E-03
Molybdenum	7439-98-7	NA		6.00E-03		6.00E-03	g		6.00E-03
Nickel	7440-02-0	NA	5.99E-03			6.00E-03	g		5.99E-03
Potassium	7440-09-7	NA		2.00E-02		2.00E-02	g		2.00E-02
Rhodium	7440-16-6	NA		2.00E-03		2.00E-03	g		2.00E-03
Selenium	7782-49-2	NA	2.27E-03			1.50E-02	g		2.27E-03
Silicon	7440-21-3	NA		4.00E-05		4.00E-05	g		4.00E-05
Silver	7440-22-4	NA	3.00E-03			3.00E-03	g		3.00E-03
Sodium	7440-23-5	NA		5.50E-02		5.50E-02	g		5.50E-02
Strontium	7440-24-6	NA		3.00E-04		3.00E-04	g		3.00E-04
Tantalum	7440-25-7	NA		6.00E-04		6.00E-04	g		6.00E-04
Thallium	7440-28-0	NA	4.01E-02			4.00E-02	g		4.01E-02
Tin	7440-31-5	NA		8.00E-02		8.00E-02	g		8.00E-02
Tungsten	7440-33-7	NA		4.50E-02		4.50E-02	g		4.50E-02
Uranium	7440-61-1	NA		2.00E-04		2.00E-04	g		2.00E-04
Vanadium	7440-62-2	NA		2.50E-03		2.50E-03	g		2.50E-03
Yttrium	7440-65-5	NA		3.00E-04		3.00E-04	g		3.00E-04
Zinc	7440-66-6	NA	8.99E-05			1.00E-01	g		8.99E-05
Zirconium	7440-67-7	NA		5.50E-03		5.50E-03	g		5.50E-03
Non-metals and Anions									
Ammonia/Ammonium	7664-41-7	NA				1.00E+00			1.00E+00
Bromide	24959-67-9	NA		2.50E-02		2.50E-02	g		2.50E-02
Chloride	16887-00-6	NA		8.00E-02		8.00E-02	g		8.00E-02
Cyanide	57-12-5	NA				1.00E+00			1.00E+00
Fluoride	16984-48-8	NA		1.50E-01		1.50E-01	g		1.50E-01
Hydroxide	14280-30-9	NA		NA				Depends on pH	NA
Iodine	7553-56-2	NA		7.00E-03		7.00E-03	g		7.00E-03
Nitrate	14797-55-8	NA		7.50E-02		7.50E-02	g		7.50E-02

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Nitrite	14797-65-0	NA		7.50E-02		7.50E-02	g		7.50E-02
Phosphate	14265-44-2	NA		5.50E-02		5.50E-02	g		5.50E-02
Phosphorus	7723-14-0	NA		5.50E-02		5.50E-02	g		5.50E-02
Sulfate	14808-79-8	NA		1.00E-01		1.00E-01	g		1.00E-01
Total Sulfur	63705-05-5	NA		1.00E-01		1.00E-01	g		1.00E-01
Priority Pollutants									
Carbon Dioxide	124-38-9	NA				1.00E+00			1.00E+00
Nitrogen Dioxide	10102-44-0	NA				1.00E+00			1.00E+00
Ozone	10028-15-6	NA				1.00E+00			1.00E+00
Particulate Matter	No CAS #	NA		NA		NA			NA
Sulfur Dioxode	7446-09-5	NA				1.00E+00			1.00E+00
Radionuclides									
Americium-241	1596-10-2	NA		3.50E-06		3.50E-06	g		3.50E-06
Antimony-125	14234-35-6	NA		1.00E-03		1.00E-03	g		1.00E-03
Barium-137	13981-97-0	NA		1.50E-04		1.50E-04	g		1.50E-04
Cadmium-113	None	NA	1.20E-04			5.50E-04	g		1.20E-04
Cesium-134	13967-70-9	NA		2.00E-02		2.00E-02	g		2.00E-02
Cesium-137	10045-97-3	NA		2.00E-02		2.00E-02	g		2.00E-02
Europium-154	15585-10-1	NA		5.00E-03		5.00E-03	g		5.00E-03
Europium-155	14391-16-3	NA		5.00E-03		5.00E-03	g		5.00E-03
Nickel-63	13981-37-8	NA		6.00E-03		6.00E-03	g		6.00E-03
Plutonium-239	15117-48-3	NA		5.00E-07		5.00E-07	g		5.00E-07
Plutonium-241	14119-32-5	NA		5.00E-07		5.00E-07	g		5.00E-07
Samarium-151	15715-94-3	NA		5.00E-03		5.00E-03	g		5.00E-03
Strontium-90	10098-97-2	NA		3.00E-04		3.00E-04	g		3.00E-04
Technetium-99	14133-79-7	NA		8.50E-03		8.50E-03	g		8.50E-03
Tritium	10028-17-8	NA							
Yttrium-90	10098-91-6	NA		3.00E-04		3.00E-04	g		3.00E-04
Uranium-232	14158-29-3	NA		2.00E-04		2.00E-04	g		2.00E-04

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]
Uranium-233	13968-55-3	NA		2.00E-04		2.00E-04	g		2.00E-04
Uranium-234	13966-29-5	NA		2.00E-04		2.00E-04	g		2.00E-04
Uranium-235	15117-96-1	NA		2.00E-04		2.00E-04	g		2.00E-04
Uranium-236	13982-70-2	NA		2.00E-04		2.00E-04	g		2.00E-04
Uranium-238	7440-61-1	NA		2.00E-04		2.00E-04	g		2.00E-04
Actinium-227	14952-40-0	NA		2.50E-03		2.50E-03	g		2.50E-03
Americium-243	14993-75-0	NA		3.50E-06		3.50E-06	g		3.50E-06
Carbon-14	14762-75-5	NA							
Cobalt-60	10198-40-0	NA		2.00E-02		2.00E-02	g		2.00E-02
Curium-242	15510-73-3	NA		3.50E-06		3.50E-06	g		3.50E-06
Curium-243	15757-87-6	NA		3.50E-06		3.50E-06	g		3.50E-06
Curium-244	13981-15-2	NA		3.50E-06		3.50E-06	g		3.50E-06
Europium-152	14683-23-9	NA		5.00E-03		5.00E-03	g		5.00E-03
Iodine-129	15046-84-1	NA		7.00E-03		7.00E-03	g		7.00E-03
Neptunium-237	13994-20-2	NA		5.50E-03		5.50E-03	g		5.50E-03
Nickel-59	14336-70-0	NA		6.00E-03		6.00E-03	g		6.00E-03
Niobium-93		NA		2.50E-01		2.50E-01	g		2.50E-01
Plutonium-238	13981-16-3	NA		5.00E-07		5.00E-07	g		5.00E-07
Plutonium-240	14119-33-6	NA		5.00E-07		5.00E-07	g		5.00E-07
Plutonium-242	13982-10-0	NA		5.00E-07		5.00E-07	g		5.00E-07
Protactinium-231	14331-85-2	NA		1.00E-05		1.00E-05	g		1.00E-05
Radium-226	13982-63-3	NA		2.50E-04		2.50E-04	g		2.50E-04
Radium-228	15262-20-1	NA		2.50E-04		2.50E-04	g		2.50E-04
Ruthenium-106	13967-48-1	NA		2.00E-03		2.00E-03	g		2.00E-03
Selenium-79	None	NA		1.50E-02		1.50E-02	g		1.50E-02
Thorium-229	15594-54-4	NA		6.00E-06		6.00E-06	g		6.00E-06
Thorium-232	7440-29-1	NA		6.00E-06		6.00E-06	g		6.00E-06
Tin-126	15832-50-5	NA		8.00E-02		8.00E-02	g		8.00E-02
Zirconium-93	15751-77-6	NA		5.50E-03		5.50E-03	g		5.50E-03

Table C2-5. Terrestrial Animal-to-Animal Transfer Factors (Ba) for Ecological Receptors (mg/kg tissue/mg ingested/day)

Constituent of Potential Concern	CAS Registry Number	k	EPA (1999) Ba, Mammals[b]	Ba Calculated by EPA (1999) Methods[c]	Ecology Guidance Preferred Ba	SAIC Compiled Ba	Notes	Comments	Recommended Mammal Ba[d]

NA = Not applicable

[a] $\log_{10}$ of K_{ow} values in Table 4.1

[b] EPA (1999) calculates receptor-specific BCFs by multiplying the beef Ba [(mg/kg tissue)/(mg COPC ingested/day)] from Baes and othersl. (1984) by the receptor's specific ingestion rate (kg food/kg body wt/day). Receptor-specific values are found in Appendix D, Tables D-1 through D-3 in EPA (1999).
In this table, Ba values are back-calculated by dividing BCFs for muskrats by the ingestion rate of 0.267 kg/kg BW/d EPA (1999), Table 5-1.
EPA (1999) calculates bird Ba values for organics by multiplying mammal Ba values by 0.79, the nominal ratio of body fat in birds to body fat in mammals.

c Appendix D, Sect. D-1.1 EPA (1999) specifies that Ba values for organics other than dioxins and dibenzofurans, log Ba = -7.6 +log K_{ow} (Travis and Arms 1988).
For inorganic constituents, Ba values from Baes and others. (1984) were used EPA (1999), Appendix D, Sect. D-1.1

[d] Selection criteria described in Sect. 8.2.4.3

[e] Calculated by using log K_{ow}: log Ba = log K_{ow} -7.6 (Travis and Arms 1988)

[f] Value for Aroclor 1254 in Appendix D of EPA (1999), Table D-1, was used for PCB mixtures

[g] Baes and others. (1984), Figure 2.25

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Organic Compounds										
Aromatic Halogenated Hydrocarbons										
4-Chloro-3-methylphenol	59-50-7	3.10		2.47E+01	g		6.03E+00	7.54E-01		7.54E-01
2,3,4,6-Tetrachlorophenol	58-90-2	4.42		2.98E+02	g		6.61E+01	1.43E+00		1.43E+00
Aromatic Nonhalogenated Hydrocarbons										
2-Nitrotoluene	88-72-2	2.30		5.47E+00	g		4.27E+00	1.55E+00		1.55E+00
4-Nitrobiphenyl	92-93-3	3.77		8.74E+01	g		No Kd	1.00E+00	Default	1.00E+00
Benzaldehyde	100-52-7	1.48		1.16E+00	g		2.01E-01	2.18E-01		2.18E-01
Benzene	71-43-2	-4.99		5.84E-06	g		6.20E+01	3.69E+05		3.69E+05
Benzyl alcohol	100-51-6	1.10		5.69E-01	g		1.02E-01	1.83E-01		1.83E-01
Ethyl benzene	100-41-4	3.12		2.58E+01	g		2.04E+00	2.47E-01		2.47E-01
m-Xylene	108-38-3	3.20		2.99E+01	g		1.96E+00	2.14E-01		2.14E-01
o-Xylene	95-47-6	3.13		2.62E+01	g		2.41E+00	2.90E-01		2.90E-01
p-Xylene	106-42-3	3.17		2.82E+01	g		3.11E+00	3.54E-01		3.54E-01
Styrene	100-42-5	2.93		1.79E+01	g		9.12E+00	1.43E+00		1.43E+00
Toluene	108-88-3	2.67		1.09E+01	g		1.40E+00	3.11E-01		3.11E-01
Non-aromatic Nonhalogenated Hydrocarbons										
1,2-Epoxybutane	106-88-7	1.44		1.08E+00	g		No Kd	1.00E+00	Default	1.00E+00
1,3-Butadiene	106-99-0	1.90		2.57E+00	g		7.41E-01	4.58E-01		4.58E-01
1,4-Dioxane	123-91-1	-0.27	4.00E-02		g		8.76E-03	9.69E-02		9.69E-02
1-Methylpropyl alcohol	78-92-2	0.61		2.26E-01	g		4.00E-02	1.37E-01		1.37E-01
1-Nitropropane	108-03-2	0.87		3.69E-01	g		No Kd	1.00E+00	Default	1.00E+00
2,2,4-Trimethylpentane	540-84-1	5.02		9.23E+02	g		8.64E+02	8.40E+00		8.40E+00
2-Butanone	78-93-3	0.28		1.21E-01	g		2.34E-02	1.25E-01		1.25E-01
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2-Ethoxyethanol	110-80-5	-0.10		5.92E-02	g		2.09E-01	1.85E+00		1.85E+00
2-Heptanone	110-43-0	1.98		2.99E+00	g		8.88E-01	4.93E-01		4.93E-01
2-Hexanone	591-78-6	1.38		9.64E-01	g		1.34E+00	1.65E+00		1.65E+00
2-Methoxyethanol	109-86-4	0.25		1.15E-01	g		No Kd	1.00E+00	Default	1.00E+00
2-Methyl-2-propanol	75-65-0	0.35		1.38E-01	g		3.72E-01	1.81E+00		1.81E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
2-Methyl-2-propenenitrile	126-98-7	0.54		1.98E-01	g		3.74E-02	1.41E-01		1.41E-01
2-Methylaziridine	75-55-8	-0.60		2.29E-02	g		No Kd	1.00E+00	Default	1.00E+00
2-Methylpropyl alcohol	78-83-1	0.76		3.00E-01	g		5.61E-02	1.58E-01		1.58E-01
2-Pentanone	107-87-9	0.91		3.97E-01	g		7.40E-01	1.71E+00		1.71E+00
2-Propanone (Acetone)	67-64-1	-0.22	5.00E-02		g		9.51E-03	9.89E-02		9.89E-02
2-Propene-1-ol	107-18-6	0.17		9.85E-02	g		1.48E-02	9.12E-02		9.12E-02
2-Propyl alcohol	67-63-0	0.05		7.85E-02	g		1.12E-02	8.15E-02		8.15E-02
3-Heptanone	106-35-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
3-Methyl-1-butanol	123-51-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
3-Methyl-2-butanone	563-80-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
3-Pentanone	96-22-0	0.99		4.62E-01	g		1.20E-01	2.49E-01		2.49E-01
4-Heptanone	123-19-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
4-Methyl-2-pentanone	108-10-1	1.19		6.74E-01	g		1.20E-01	1.91E-01		1.91E-01
4-Methyl-3-penten-2-one	141-79-7	No data		No data			No Kd	1.00E+00	Default	1.00E+00
5-Methyl-2-hexanone	110-12-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Acetaldehyde	75-07-0	-0.22		4.72E-02	g		9.53E-03	9.90E-02		9.90E-02
Acetamide	60-35-5	-1.26		6.64E-03	g		2.82E-04	1.17E-02		1.17E-02
Acetic acid	64-19-7	-0.17		5.19E-02	g		1.00E-02	9.71E-02		9.71E-02
Acetic acid ethyl ester	141-78-6	0.73		2.83E-01	g		2.30E-02	6.73E-02		6.73E-02
Acetic acid n-butyl ester	123-86-4	1.73		1.87E+00	g		5.04E-01	3.91E-01		3.91E-01
Acetonitrile	75-05-8	-0.34		3.76E-02	g		7.69E-03	9.37E-02		9.37E-02
Acrolein	107-02-8	-0.01		7.03E-02	g		1.39E-02	1.09E-01		1.09E-01
Acrylonitrile	107-13-1	0.25	1.10E-01		g		2.22E-02	1.23E-01		1.23E-01
Bis(isopropyl)ether	108-20-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Butane	106-97-8	2.89		1.66E+01	g		No Kd	1.00E+00	Default	1.00E+00
Carbon disulfide	75-15-0	2.00		3.10E+00	g		5.14E-01	2.78E-01		2.78E-01
Cyanogen	460-19-5	0.81		3.28E-01	g		No Kd	1.00E+00	Default	1.00E+00
Cyclohexane	110-82-7	3.44		4.69E+01	g		4.79E+00	3.81E-01		3.81E-01
Cyclohexanone	108-94-1	0.81		3.29E-01	g		6.28E-02	1.66E-01		1.66E-01
Cyclohexene	110-83-8	2.86		1.57E+01	g		6.51E+00	1.12E+00		1.12E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Cyclopentane	287-92-3	3.00		2.05E+01	g		8.93E+00	1.28E+00		1.28E+00
Ethyl alcohol	64-17-5	0.31		1.28E-01	g		2.03E-02	1.04E-01		1.04E-01
Ethyl ether	60-29-7	0.89		3.83E-01	g		7.53E-02	1.78E-01		1.78E-01
Ethyl methacrylate	97-63-2	1.59		1.43E+00	g		2.46E-01	2.30E-01		2.30E-01
Formaldehyde	50-00-0	0.34	1.40E-01		g		2.62E-02	1.29E-01		1.29E-01
Formamide	75-12-7	-1.51		4.14E-03	g		No Kd	1.00E+00	Default	1.00E+00
Formic acid	64-18-6	-0.54		2.59E-02	g		5.39E-02	8.54E-01		8.54E-01
Formic acid, methyl ester	107-31-3	-0.26		4.34E-02	g		No Kd	1.00E+00	Default	1.00E+00
Glycidylaldehyde	765-34-4	-0.73		1.80E-02	g		No Kd	1.00E+00	Default	1.00E+00
Methyl acetate	79-20-9	0.18		1.00E-01	g		4.80E-02	2.92E-01		2.92E-01
Methyl alcohol	67-56-1	-0.71		1.87E-02	g		3.96E-03	7.89E-02		7.89E-02
Methyl isocyanate	624-83-9	No data		No data			No Kd	NA	Reacts with water	NA
Methyl methacrylate	80-62-6	0.79		3.17E-01	g		6.31E-01	1.71E+00		1.71E+00
Methyl tert-butyl ether	1634-04-4	0.94		4.21E-01	g		8.43E-02	1.87E-01		1.87E-01
Methylacetylene	74-99-7	0.94		4.21E-01	g		No Kd	1.00E+00	Default	1.00E+00
Methylcyclohexane	108-87-2	4.10		1.63E+02	g		1.08E+02	3.56E+00		3.56E+00
N,N-Dimethylacetamide	127-19-5	No data		No data			No Kd	1.00E+00	Default	1.00E+00
n-Butyl alcohol	71-36-3	0.88		3.76E-01	g		7.36E-02	1.77E-01		1.77E-01
n-Heptane	142-82-5	4.66		4.68E+02	g		3.83E+02	6.00E+00		6.00E+00
n-Hexane	110-54-3	4.11		1.66E+02	g		1.10E+02	3.59E+00		3.59E+00
Nitromethane	75-52-5	-0.35		3.69E-02	g		No Kd	1.00E+00	Default	1.00E+00
n-Nonane	111-84-2	5.65		3.03E+03	g		3.60E+03	1.51E+01		1.51E+01
n-Octane	111-65-9	4.00		1.35E+02	g		8.59E+01	3.24E+00		3.24E+00
n-Pentane	109-66-0	3.21		3.04E+01	g		1.44E+01	1.55E+00		1.55E+00
n-Propionaldehyde	123-38-6	0.59		2.17E-01	g		3.82E-02	1.35E-01		1.35E-01
n-Propyl alcohol	71-23-8	0.25		1.14E-01	g		No Kd	1.00E+00	Default	1.00E+00
n-Valeraldehyde	110-62-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Oxirane	75-21-8	-0.30		4.06E-02	g		8.26E-03	9.54E-02		9.54E-02
p-Cymene	99-87-6	4.10		1.63E+02	g		No Kd	1.00E+00	Default	1.00E+00
Phosgene	75-44-5	No data		No data			No Kd	1.00E+00	Default	1.00E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) WP[b]	WP Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance WP	Soil Kd[d]	SAIC Computed WP[e]	Comments	Recommended WP[f]
Propargyl alcohol	107-19-7	0.26		1.17E-01	g		No Kd	1.00E+00	Default	1.00E+00
Propionic acid	79-09-4	0.33		1.33E-01	g		2.12E-02	1.06E-01		1.06E-01
Propionitrile	107-12-0	0.16		9.66E-02	g		1.44E-02	9.03E-02		9.03E-02
Propylene gylcol monomethyl ether	107-98-2	-0.18		5.09E-02	g		No Kd	1.00E+00	Default	1.00E+00
p-tert-Butyltoluene	98-51-1	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Triethylamine	121-44-8	0.16		9.66E-02	g		1.44E-02	9.03E-02		9.03E-02
Trimethylamine	75-50-3	0.16		9.66E-02	g		4.00E-02	2.50E-01		2.50E-01
Vinyl acetate	108-05-4	0.70		2.67E-01	g		4.97E-02	1.52E-01		1.52E-01
Non-aromatic Halogenated Hydrocarbons										
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data			No Kd	1.00E+00	Default	1.00E+00
1,1,1,2-Tetrachloroethane	630-20-6	2.63		1.02E+01	g		1.59E+00	3.72E-01		3.72E-01
1,1,1-Trichloroethane	71-55-6	2.42		6.88E+00	g		1.35E+03	4.17E+02		4.17E+02
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	3.73		8.11E+01	g		3.16E+00	1.71E-01		1.71E-01
1,1,2,2-Tetrachloroethane	79-34-5	4.64		4.54E+02	g		7.90E-01	1.27E-02		1.27E-02
1,1,2,2-Tetrachloroethene	127-18-4	2.55		8.68E+00	g		2.65E+00	6.94E-01		6.94E-01
1,1,2-Trichloroethane	79-00-5	2.10		3.73E+00	g		7.50E-01	3.57E-01		3.57E-01
1,1,2-Trichloroethylene	79-01-6	2.43		7.02E+00	g		9.40E-01	2.86E-01		2.86E-01
1,1-Dichloroethane	75-34-3	1.79		2.10E+00	g		5.30E-01	3.78E-01		3.78E-01
1,1-Dichloroethene	75-35-4	2.12		3.90E+00	g		6.50E-01	2.99E-01		2.99E-01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	3.16		2.77E+01	g		2.57E+00	2.97E-01		2.97E-01
1,2,3-Trichloropropane	96-18-4	2.25		4.98E+00	g		8.10E-01	3.14E-01		3.14E-01
1,2-Dibromo-3-chloropropane	96-12-8	2.34		5.90E+00	g		9.47E-01	3.26E-01		3.26E-01
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	2.82		1.46E+01	g		No Kd	1.00E+00	Default	1.00E+00
1,2-Dichloroethane	107-06-2	1.46		1.13E+00	g		1.96E-01	2.17E-01		2.17E-01
1,2-Dichloroethylene	540-59-0	0.48		1.77E-01	g		No Kd	1.00E+00	Default	1.00E+00
1,2-Dichloropropane	78-87-5	2.25		4.98E+00	g		4.70E-01	1.82E-01		1.82E-01
1,3-Dichloropropene	542-75-6	1.75		1.93E+00	g		2.70E-01	2.04E-01		2.04E-01
1,4-Dichloro-2-butene	764-41-0	0.87		3.70E-01	g		No Kd	1.00E+00	Default	1.00E+00
1-Chloroethene	75-01-4	1.15		6.20E-01	g		1.11E-01	1.87E-01		1.87E-01
2,2-Dichloropropionic acid	75-99-0	0.78		3.10E-01	g		No Kd	1.00E+00	Default	1.00E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
2-Chloropropane	75-29-6	1.90		2.57E+00	g		7.41E-01	4.58E-01		4.58E-01
3-Chloropropene (allyl chloride)	107-05-1	0.95		4.32E-01	g		No Kd	1.00E+00	Default	1.00E+00
Bromochloromethane	74-97-5	1.41		1.02E+00	g		2.44E-01	2.90E-01		2.90E-01
Bromodichloromethane	75-27-4	2.03		3.26E+00	g		5.38E-01	2.81E-01		2.81E-01
Bromoethene	593-60-2	1.07		5.34E-01	g		No Kd	1.00E+00	Default	1.00E+00
Bromoform	75-25-2	2.35		6.01E+00	g		1.26E+00	4.28E-01		4.28E-01
Bromomethane	74-83-9	1.11		5.84E-01	g		9.00E-02	1.58E-01		1.58E-01
Carbon tetrachloride	56-23-5	2.72	3.00E+02				1.52E+00	3.16E-01		3.00E+02
Chlorodibromomethane	124-48-1	2.18		4.33E+00	g		7.05E-01	3.02E-01		3.02E-01
Chlorodifluoromethane	75-45-6	1.08		5.47E-01	g		9.83E-02	1.81E-01		1.81E-01
Chloroethane	75-00-3	3.10		2.47E+01	g		3.71E+00	4.64E-01		4.64E-01
Chloroform	67-66-3	1.95	2.82E+00		g		5.30E+01	3.07E+01		3.07E+01
Chloromethane	74-87-3	0.90		3.92E-01	g		6.00E-02	1.40E-01		1.40E-01
Chloropentafluoroethane	76-15-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
cis-1,2-Dichloroethene	156-59-2	1.98		3.00E+00	g		4.98E+00	2.76E+00		2.76E+00
cis-1,3-Dichloropropene	10061-01-5	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Cyanogen bromide	506-68-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Cyanogen chloride	506-77-4	0.20		1.04E-01	g		No Kd	1.00E+00	Default	1.00E+00
Dichlorodifluoromethane	75-71-8	2.16		4.19E+00	g		6.85E-01	3.00E-01		3.00E-01
Dichlorofluoromethane	75-43-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dichloromethane	75-09-2	1.26		7.62E-01	g		1.00E-01	1.46E-01		1.46E-01
Difluorodibromomethane	75-61-6	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Hexafluoroacetone	684-16-2	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Iodomethane	74-88-4	1.69		1.73E+00	g		4.61E-01	3.76E-01		3.76E-01
Methylene bromide	74-95-3	1.62		1.52E+00	g		2.60E-01	2.33E-01		2.33E-01
Pentachloroethane	76-01-7	3.05		2.25E+01	g		1.00E+01	1.34E+00		1.34E+00
trans-1,2-Dichloroethene	156-60-5	1.98		3.00E+00	g		3.80E-01	2.10E-01		2.10E-01
trans-1,3-Dichloropropene	10061-02-6	2.06		3.48E+00	g		No Kd	1.00E+00	Default	1.00E+00
Trichloroacetic acid	76-03-9	1.33		8.78E-01	g		2.04E-01	2.69E-01		2.69E-01
Trichlorofluoroethane	27154-33-2	No data		No data			No Kd	1.00E+00	Default	1.00E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Trichlorofluoromethane	75-69-4	2.53		8.46E+00	g		1.34E+00	3.57E-01		3.57E-01
Trifluorobromomethane	75-63-8	1.86		2.38E+00	g		No Kd	1.00E+00	Default	1.00E+00
Dioxin and Furan Compounds										
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	8.20	1.68E+02		h		9.77E+05	5.67E+01		1.68E+02
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	7.92	3.63E+01		h		5.13E+05	6.36E+00		3.63E+01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	7.92	1.29E+03		h		5.13E+05	2.26E+02		1.29E+03
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	7.79	1.02E+03		h		3.80E+05	1.29E+02		1.02E+03
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	7.25	2.51E+02		h		1.10E+05	9.46E+00		2.51E+02
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	7.25	3.96E+02		h		1.10E+05	1.47E+01		3.96E+02
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	7.25	6.27E+02		h		1.10E+05	2.42E+01		6.27E+02
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	7.25	4.62E+02		h		1.10E+05	1.72E+01		4.62E+02
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	7.25	2.08E+03		h		1.10E+05	7.70E+01		2.08E+03
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	6.64	3.04E+03		h		2.69E+04	2.80E+01		3.04E+03
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6.79	7.26E+02		h		3.80E+04	8.36E+00		7.26E+02
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	7.25	2.21E+03		h		1.10E+05	8.36E+01		2.21E+03
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	6.92	5.28E+03		h		5.13E+04	9.23E+01		5.28E+03
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	6.64	3.30E+03				2.69E+04	3.02E+01		3.30E+03
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	6.53	2.64E+03		h		2.09E+04	1.88E+01		2.64E+03
Dibenzofuran	132-64-9	4.33		2.51E+02	g		1.81E+02	4.41E+00		4.41E+00
Octachlorodibenzo(p)dioxin	3268-87-9	8.20	3.96E+01		h		2.24E+01	3.00E-04		3.96E+01
Octachlorodibenzofuran	39001-02-0	8.78	5.28E+01		h		3.72E+06	6.70E+01		5.28E+01
PCBs										
Polychlorinated biphenyls (PCBs)[i]	1336-36-3	7.31	4.77E+05				3.09E+03	6.18E+00		4.77E+05
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	7.08		4.49E+04	g		No Kd	1.00E+00	Default	1.00E+00
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	7.12		4.84E+04	g		No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+00	Default	1.00E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+00	Default	1.00E+00
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	7.12		4.84E+04	g		No Kd	1.00E+00	Default	1.00E+00
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	7.41		8.34E+04	g		No Kd	1.00E+00	Default	1.00E+00
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+00	Default	1.00E+00
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Phthalates										
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	5.20	9.93E+03				1.11E+03	8.44E+00		9.93E+03
Butylbenzyl phthalate	85-68-7	4.41		2.94E+02	g		1.37E+02	2.98E+00		2.98E+00
Dibutyl phthalate	84-74-2	4.72		5.25E+02	g		1.57E+01	2.27E-01		2.27E-01
Diethyl phthalate	84-66-2	4.44		3.07E+02	g		8.20E-01	1.73E-02		1.73E-02
Dimethylphthalate	131-11-3	1.63		1.56E+00	g		2.66E+00	2.34E+00		2.34E+00
n-Dioctyl phthalate	117-84-0	9.33	2.85E+04				9.03E+06	2.84E+02		2.85E+04
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)										
2-Chloronapthalene	91-58-7	4.07		1.53E+02	g		7.14E+01	2.46E+00		2.46E+00
2-Methyl naphthalene	91-57-6	3.86		1.04E+02	g		6.26E+01	2.85E+00		2.85E+00
5-Nitroacenaphthene	602-87-9	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Acenaphthene	83-32-9	3.96		1.26E+02	g		4.90E+01	1.94E+00		1.94E+00
Acenaphthylene	208-96-8	4.07		1.54E+02	g		6.76E+01	2.33E+00		2.33E+00
Anthracene	120-12-7	4.47		3.27E+02	g		2.35E+02	4.75E+00		4.75E+00
Fluorene	86-73-7	4.18		1.89E+02	g		1.41E+02	4.20E+00		4.20E+00
Indene	95-13-6	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Naphthalene	91-20-3	3.37		4.13E+01	g		1.19E+01	1.04E+00		1.04E+00
Phenanthrene	85-01-8	4.55		3.81E+02	g		5.01E+02	9.10E+00		9.10E+00
Pyrene	129-00-0	5.00		8.89E+02	g		6.80E+02	6.78E+00		6.78E+00
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)										
3-Methylcholanthrene	56-49-5	7.11		4.75E+04	g		1.51E+04	9.11E+00		9.11E+00
5-Methylchrysene	3697-24-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Benzo(a)anthracene	56-55-3	5.68	5.26E+03		j		2.60E+03	1.05E+01		5.26E+03

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Benzo(a)pyrene	50-32-8	6.13	5.26E+03				9.69E+03	2.15E+01		5.26E+03
Benzo(b)fluoranthene	205-99-2	6.20	5.26E+03		j		8.36E+03	1.69E+01		5.26E+03
Benzo(e)pyrene	192-97-2	7.40		8.21E+04	g		1.58E+05	6.48E+01		6.48E+01
Benzo(g,h,i)perylene	191-24-2	7.10		4.67E+04	g		1.82E+04	1.11E+01		1.11E+01
Benzo(j)fluoranthene	205-82-3	6.44		1.34E+04	g		2.15E+04	3.16E+01		3.16E+01
Benzo(k)fluoranthene	207-08-9	6.20	5.26E+03		j		8.32E+03	1.68E+01		5.26E+03
Benzo[a,i]pyrene	191-30-0	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Chrysene	218-01-9	5.74	5.26E+03		j		2.97E+03	1.11E+01		5.26E+03
Dibenz(a,h)anthracene	53-70-3	6.55	5.26E+03		j		1.79E+04	2.29E+01		5.26E+03
Dibenz[a,h]acridine	226-36-8	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dibenz[a,j]acridine	224-42-0	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dibenzo(a,h)fluoranthene	no cas #	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dibenzo[a,e]pyrene	192-65-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dibenzo[a,h]pyrene	189-64-0	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dibenzo[a,i]pyrene	189-55-9	7.29		6.68E+04	g		No Kd	1.00E+00	Default	1.00E+00
Fluoranthene	206-44-0	5.08		1.04E+03	g		4.91E+02	4.39E+00		4.39E+00
Hexachloronaphthalene	1335-87-1	7.59		1.18E+05	g		No Kd	1.00E+00	Default	1.00E+00
Indeno(1,2,3-cd)pyrene	193-39-5	6.91	5.26E+03		j		4.11E+04	3.21E+01		5.26E+03
Octachloronaphthalene	2234-13-1	6.42		1.29E+04	g		No Kd	1.00E+00	Default	1.00E+00
Pentachloronaphthalene	1321-64-8	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Tetrachloronaphthalene	1335-88-2	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Trichloronaphthalene	1321-65-9	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Light Substituted Benzene Compounds (MW <200 g/mole)										
1,2,3-Trichlorobenzene	87-61-6	4.05		1.47E+02	g		2.02E+02	7.18E+00		7.18E+00
1,2,4-Trichlorobenzene	120-82-1	3.99		1.32E+02	g		1.66E+01	6.37E-01		6.37E-01
1,2,4-Trimethyl benzene	95-63-6	3.65		6.97E+01	g		3.89E+01	2.34E+00		2.34E+00
1,2-Dichlorobenzene	95-50-1	3.45		4.74E+01	g		3.79E+00	2.99E-01		2.99E-01
1,3,5-Trimethyl benzene	108-67-8	3.42		4.52E+01	g		1.67E+01	1.36E+00		1.36E+00
1,3-Dichlorobenzene	541-73-1	3.53		5.56E+01	g		8.03E+01	5.67E+00		5.67E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) WP[b]	WP Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance WP	Soil Kd[d]	SAIC Computed WP[e]	Comments	Recommended WP[f]
1,3-Dinitrobenzene	99-65-0	1.49	2.51E+03		k		2.06E-01	2.19E-01		2.51E+03
1,4-Dichlorobenzene	106-46-7	3.41		4.45E+01	g		6.16E+00	5.09E-01		5.09E-01
1,4-Dinitrobenzene	100-25-4	1.50		1.21E+00	g		No Kd	1.00E+00	Default	1.00E+00
2,4,5-Trichlorophenol	95-95-4	3.87		1.06E+02	g		1.13E+01	5.07E-01		5.07E-01
2,4,6-Trichlorophenol	88-06-2	3.71		7.83E+01	g		2.26E+00	1.25E-01		1.25E-01
2,4-Dichlorophenol	120-83-2	3.04		2.20E+01	g		1.40E+00	1.90E-01		1.90E-01
2,4-Dimethylphenol	105-67-9	2.36		6.12E+00	g		1.26E+00	4.22E-01		4.22E-01
2,4-Dinitrophenol	51-28-5	1.52		1.25E+00	g		1.00E-04	1.03E-04		1.03E-04
2,4-Dinitrotoluene	121-14-2	2.00	2.51E+03				5.10E-01	2.77E-01		2.51E+03
2,6-Dinitrotoluene	606-20-2	1.89	2.51E+03		k		4.19E-01	2.64E-01		2.51E+03
2-Chlorophenol	95-57-8	2.16		4.21E+00	g		3.87E+00	1.69E+00		1.69E+00
2-Chlorotoluene	95-49-8	3.54		5.63E+01	g		No Kd	1.00E+00	Default	1.00E+00
2-Nitrophenol	88-75-5	1.79		2.09E+00	g		3.53E+00	2.52E+00		2.52E+00
4,6-Dinitro-o-cresol	534-52-1	2.85		1.54E+01	g		No Kd	1.00E+00	Default	1.00E+00
4-Chlorotoluene	106-43-4	3.33		3.81E+01	g		No Kd	1.00E+00	Default	1.00E+00
4-Nitrophenol	100-02-7	1.91		2.62E+00	g		4.37E+02	2.66E+02		2.66E+02
alpha-Methylstyrene	98-83-9	3.46		4.90E+01	g		No Kd	1.00E+00	Default	1.00E+00
Aniline	62-53-3	0.98		4.54E-01	g		8.23E-02	1.73E-01		1.73E-01
Benzotrichloride	98-07-7	2.92		1.76E+01	g		No Kd	1.00E+00	Default	1.00E+00
Benzyl chloride	100-44-7	0.36		1.41E-01	g		2.71E-02	1.30E-01		1.30E-01
Bromobenzene	108-86-1	2.99		2.01E+01	g		4.47E+00	6.47E-01		6.47E-01
Chlorobenzene	108-90-7	2.79		1.38E+01	g		2.24E+00	4.24E-01		4.24E-01
Cumene	98-82-8	3.61		6.50E+01	g		9.13E+01	5.77E+00		5.77E+00
m-Cresol	108-39-4	1.96		2.87E+00	g		4.78E-01	2.73E-01		2.73E-01
n-Butyl benzene	104-51-8	4.28		2.29E+02	g		2.51E+01	6.53E-01		6.53E-01
Nitrobenzene	98-95-3	1.83	2.40E+01				1.19E+00	8.04E-01		2.40E+01
n-Propyl benzene	103-65-1	3.69		7.52E+01	g		7.24E+00	4.13E-01		4.13E-01
o-Cresol	95-48-7	2.02		3.23E+00	g		5.34E-01	2.81E-01		2.81E-01
o-Dinitrobenzene	528-29-0	1.60		1.46E+00	g		No Kd	1.00E+00	Default	1.00E+00
o-Nitroaniline	88-74-4	1.85		2.34E+00	g		3.93E+00	2.59E+00		2.59E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP[b]	WP Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance WP	Soil Kd[d]	SAIC Computed WP[e]	Comments	Recommended WP[f]
o-Toluidine	95-53-4	1.34		8.95E-01	g		1.57E-01	2.04E-01		2.04E-01
p-Chloroaniline	106-47-8	1.87		2.43E+00	g		4.06E-01	2.61E-01		2.61E-01
p-Cresol	106-44-5	1.94		2.77E+00	g		4.61E-01	2.70E-01		2.70E-01
Phenol	108-95-2	1.48		1.16E+00	g		2.20E-01	2.39E-01		2.39E-01
p-Nitrochlorobenzene	100-00-5	2.39		6.48E+00	g		No Kd	1.00E+00	Default	1.00E+00
p-Toluidine	106-49-0	1.40		1.00E+00	g		2.39E-01	2.87E-01		2.87E-01
sec-Butyl benzene	135-98-8	4.57		3.95E+02	g		No Kd	1.00E+00	Default	1.00E+00
tert-Butyl benzene	98-06-6	4.11		1.66E+02	g		1.10E+02	3.59E+00		3.59E+00
Toluene-2,6-diamine	823-40-5	1.45		1.11E+00	g		No Kd	1.00E+00	Default	1.00E+00
Trimethyl benzene	25551-13-7	3.40		4.35E+01	g		No Kd	1.00E+00	Default	1.00E+00
Other Light Semivolatile Compounds (molecular weight <200 g/mole)										
1,1'-Biphenyl	92-52-4	3.90		1.12E+02	g		2.51E+01	1.08E+00		1.08E+00
1,1-Dimethylhydrazine	57-14-7	0.60		2.20E-01	g		No Kd	1.00E+00	Default	1.00E+00
1,2-Dimethylhydrazine	540-73-8	-1.37		5.42E-03	g		No Kd	1.00E+00	Default	1.00E+00
1,2-Diphenylhydrazine	122-66-7	2.94		1.83E+01	g		2.78E+00	4.30E-01		4.30E-01
1,3-Propane sultone	1120-71-4	-0.52		2.66E-02	g		No Kd	1.00E+00	Default	1.00E+00
2,4-Toluene diisocyante	584-84-9	No data		No data			No Kd	NA	Decomposes rapidly in water	NA
2-Chloroacetophenone	532-27-4	2.59		9.53E+00	g		No Kd	1.00E+00	Default	1.00E+00
2-Propenoic acid	79-10-7	0.33		1.33E-01	g		2.12E-02	1.06E-01		1.06E-01
4,4-Methylenedianiline	101-77-9	3.38		4.19E+01	g		No Kd	1.00E+00	Default	1.00E+00
Acetophenone	98-86-2	1.64		1.58E+00	g		2.69E-01	2.35E-01		2.35E-01
Benzoic acid	65-85-0	1.86		2.38E+00	g		5.50E-03	3.58E-03		3.58E-03
bis(2-Chloroethoxy)methane	111-91-1	7.59		1.18E+05	g		2.40E+05	7.63E+01		7.63E+01
bis(2-Chloroethyl) ether	111-44-4	1.30		8.31E-01	g		7.60E-01	1.04E+00		1.04E+00
Chlorocyclopentadiene	41851-50-7	2.43		6.99E+00	g		No Kd	1.00E+00	Default	1.00E+00
Cyclohexanol	108-93-0	1.23		7.27E-01	g		1.30E-01	1.96E-01		1.96E-01
Dichloroisopropyl ether	108-60-1	2.58		9.27E+00	g		6.10E-01	1.52E-01		1.52E-01
Dichloromethyl ether	542-88-1	-0.38		3.49E-02	g		7.94E-01	1.02E+01		1.02E+01
Dichloropentadiene	no cas #	No data		No data			No Kd	1.00E+00	Default	1.00E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP[b]	WP Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance WP	Soil Kd[d]	SAIC Computed WP[e]	Comments	Recommended WP[f]
Dimethyl sulfate	77-78-1	0.32		1.30E-01	g		No Kd	1.00E+00	Default	1.00E+00
Dimethylaniline	121-69-7	-0.88		1.36E-02	g		No Kd	1.00E+00	Default	1.00E+00
Di-n-propylnitrosamine	621-64-7	1.38		9.65E-01	g		1.70E-01	2.10E-01		2.10E-01
Diphenyl ether	101-84-8	4.21		2.00E+02	g		1.38E+02	3.95E+00		3.95E+00
Epichlorohydrin	106-89-8	0.25		1.15E-01	g		2.22E-02	1.23E-01		1.23E-01
Ethyl carbamate (urethane)	51-79-6	-0.15		5.38E-02	g		No Kd	1.00E+00	Default	1.00E+00
Ethyl methanesulfonate	62-50-0	0.05		7.84E-02	g		1.55E-02	1.12E-01		1.12E-01
Ethylene dibromide	106-93-4	1.75		1.94E+00	g		3.28E-01	2.47E-01		2.47E-01
Ethylene glycol	107-21-1	-0.91		1.27E-02	g		No Kd	1.00E+00	Default	1.00E+00
Ethylene glycol monobutyl ether	111-76-2	1.55		1.34E+00	g		No Kd	1.00E+00	Default	1.00E+00
Ethylene glycol monoethyl ether acetate	111-15-9	0.62		2.30E-01	g		No Kd	1.00E+00	Default	1.00E+00
Ethylene thiourea	96-45-7	-0.64		2.13E-02	g		No Kd	1.00E+00	Default	1.00E+00
Furfural	98-01-1	0.96		4.37E-01	g		8.82E-02	1.90E-01		1.90E-01
Maleic hydrazide	123-33-1	-0.74		1.77E-02	g		No Kd	1.00E+00	Default	1.00E+00
Malononitrile	109-77-3	0.04		7.70E-02	g		No Kd	1.00E+00	Default	1.00E+00
Methyl styrene (mixed isomers)	25013-15-4	3.35		3.96E+01	g		No Kd	1.00E+00	Default	1.00E+00
Methylhydrazine	60-34-4	-1.06		9.68E-03	g		No Kd	1.00E+00	Default	1.00E+00
N,N-Diphenylamine	122-39-4	3.50		5.25E+01	g		3.47E+00	2.55E-01		2.55E-01
Nitric acid, propyl ester	627-13-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
N-Nitrosodi-n-butylamine	924-16-3	2.41		6.73E+00	g		1.07E+00	3.35E-01		3.35E-01
N-Nitrosomorpholine	59-89-2	0.98		4.54E-01	g		No Kd	1.00E+00	Default	1.00E+00
N-Nitroso-N,N-dimethylamine	62-75-9	-0.47		2.94E-02	g		No Kd	1.00E+00	Default	1.00E+00
o-Anisidine	90-04-0	1.18		6.61E-01	g		No Kd	1.00E+00	Default	1.00E+00
Oxalic acid	144-62-7	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Phthalic anhydride	85-44-9	-0.60		2.30E-02	g		4.80E-03	8.28E-02		8.28E-02
p-Phthalic acid	100-21-0	0.82		3.37E-01	g		No Kd	1.00E+00	Default	1.00E+00
Pyridine	110-86-1	0.67		2.53E-01	g		4.72E-02	1.50E-01		1.50E-01
Quinoline	91-22-5	2.03		3.29E+00	g		No Kd	1.00E+00	Default	1.00E+00
Quinone	106-51-4	0.20		1.04E-01	g		No Kd	1.00E+00	Default	1.00E+00
Safrole	94-59-7	2.66		1.08E+01	g		1.68E+00	3.77E-01		3.77E-01

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Tetrahydrofuran	109-99-9	0.45		1.66E-01	g		3.16E-02	1.35E-01		1.35E-01
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)										
1,2,4,5-Tetrachlorobenzene	95-94-3	4.64		4.51E+02	g		5.89E+01	9.50E-01		9.50E-01
1,3,5-Trinitrobenzene	99-35-4	1.18		6.60E-01	g		1.18E-01	1.90E-01		1.90E-01
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	4.17		1.86E+02	g		No Kd	1.00E+00	Default	1.00E+00
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	-2.70		4.39E-04	g		No Kd	1.00E+00	Default	1.00E+00
2-sec-Butyl-4,6-dinitrophenol	88-85-7	3.14		2.66E+01	g		No Kd	1.00E+00	Default	1.00E+00
3,3'-Dimethoxybenzidine	119-90-4	1.81		2.17E+00	g		3.65E-01	2.54E-01		2.54E-01
3,3-Dichlorobenzidine	91-94-1	3.58		6.05E+01	g		8.70E+00	5.78E-01		5.78E-01
4-Bromophenylphenyl ether	101-55-3	5.00		8.89E+02	g		No Kd	1.00E+00	Default	1.00E+00
Ammonium perfluorooctanoate	3825-26-1	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Azobenzene	103-33-3	3.82		9.61E+01	g		No Kd	1.00E+00	Default	1.00E+00
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Captan	133-06-2	2.35		6.01E+00	g		2.00E+00	6.77E-01		6.77E-01
Chlorobenzilate	510-15-6	4.38		2.76E+02	g		3.69E+01	8.40E-01		8.40E-01
Dibutylphosphate	107-66-4	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Dimethyl aminoazobenzene	60-11-7	4.58		4.03E+02	g		No Kd	1.00E+00	Default	1.00E+00
Hexachlorobenzene	118-74-1	5.50	1.11E+04				8.00E+02	4.08E+00		1.11E+04
Hexachlorobutadiene	87-68-3	4.73	1.60E+02				6.94E+01	9.91E-01		1.60E+02
Hexachlorocyclopentadiene	77-47-4	5.04	6.10E+02				9.51E+01	1.07E+00		6.10E+02
Hexachloroethane	67-72-1	3.98		1.31E+02	g		1.82E+01	7.01E-01		7.01E-01
Hexachlorophene	70-30-4	7.54		1.07E+05	g		1.08E+04	3.67E+00		3.67E+00
Hexamethylene-1,5-diisocyanate	822-06-0	1.27		7.89E-01	g		No Kd	1.00E+00	Default	1.00E+00
Mirex	2385-85-5	6.89		3.14E+04	g		1.00E+04	8.07E+00		8.07E+00
Nitrofen	1836-75-5	5.53		2.42E+03	g		No Kd	1.00E+00	Default	1.00E+00
Pentachlorobenzene	608-93-5	5.09	4.00E+03				3.21E+02	2.82E+00		4.00E+03
Pentachloronitrobenzene	82-68-8	4.64	4.74E+03				5.89E+01	9.48E-01		4.74E+03
Pentachlorophenol	87-86-5	5.08	1.71E+03				1.99E+02	1.79E+00		1.71E+03
Picric acid	88-89-1	2.03		3.29E+00	g		No Kd	1.00E+00	Default	1.00E+00
Pronamide	23950-58-5	3.51		5.36E+01	g		7.74E+00	5.61E-01		5.61E-01

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Strychnine	57-24-9	1.93		2.72E+00	g		4.53E-01	2.69E-01		2.69E-01
Terphenyls	26140-60-3	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Tributyl phosphate	126-73-8	4.00		1.35E+02	g		No Kd	1.00E+00	Default	1.00E+00
Trifluralin	1582-09-8	5.34		1.69E+03	g		6.03E+01	3.82E-01		3.82E-01
Triphenylamine	603-34-9	No data		No data			No Kd	1.00E+00	Default	1.00E+00
Herbicides and Organochlorinated Pesticides										
2,4,5-T	93-76-5	3.36		4.03E+01	g		5.25E-01	4.64E-02		4.64E-02
2,4-D and esters	94-75-7	2.81		1.43E+01	g		2.00E-01	3.67E-02		3.67E-02
4,4-DDD	72-54-8	6.20		8.55E+03	g		1.00E+03	2.02E+00		2.02E+00
4,4-DDE	72-55-9	6.26	1.13E+04				8.64E+06	1.62E+04		1.13E+04
4,4-DDT	50-29-3	6.00		5.86E+03	g		2.40E+03	6.32E+00		6.32E+00
Aldrin	309-00-2	6.18		8.21E+03	g		4.87E+02	1.01E+00		1.01E+00
alpha-BHC	319-84-6	3.80		9.24E+01	g		1.76E+01	8.68E-01		8.68E-01
beta-BHC	319-85-7	3.83		9.85E+01	g		2.14E+01	1.01E+00		1.01E+00
Chlordane	57-74-9	5.94		5.21E+03	g		5.13E+02	1.47E+00		1.47E+00
Delta-BHC	319-86-8	4.14		1.76E+02	g		6.61E+00	2.07E-01		2.07E-01
Dieldrin	60-57-1	5.27		1.48E+03	g		2.55E+02	1.78E+00		1.78E+00
Endothall	145-73-3	-0.87		1.39E-02	g		1.40E-03	3.46E-02		3.46E-02
Endrin	72-20-8	4.89		7.25E+02	g		1.08E+02	1.24E+00		1.24E+00
gamma-BHC (Lindane)	58-89-9	3.72		7.96E+01	g		1.07E+01	5.87E-01		5.87E-01
Heptachlor	76-44-8	5.02	2.10E+04				9.53E+01	9.32E-01		2.10E+04
Isodrin	465-73-6	3.55		5.77E+01	g		No Kd	1.00E+00	Default	1.00E+00
Methoxychlor	72-43-5	4.53		3.64E+02	g		8.00E+02	1.50E+01		1.50E+01
Silvex (2,4,5-TP)	93-72-1	4.07		1.55E+02	g		No Kd	1.00E+00	Default	1.00E+00
Toxaphene	8001-35-2	5.50		2.28E+03	g		1.00E+03	5.13E+00		5.13E+00
Inorganic Chemicals and Compounds										
Metals										
Aluminum	7429-90-5	NA	8.33E+02				1.50E+03	1.20E+00		8.33E+02
Antimony	7440-36-0	NA	1.48E+03				4.50E+01	1.80E+00		1.48E+03
Arsenic	7440-38-2	NA	2.93E+02				2.50E+01	1.80E-01		2.99E+03

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Barium	7440-39-3	NA	2.60E+02				1.10E+01	3.30E-01		2.60E+02
Beryllium	7440-41-7	NA	1.41E+02				2.30E+01	4.60E-02		1.41E+02
Bismuth	7440-69-9	NA					2.00E+02	1.40E+00		1.40E+00
Boron	7440-42-8	NA					3.00E+00	2.40E+00		2.40E+00
Cadmium	7440-43-9	NA	7.82E+02				1.50E+01	1.09E+00		7.82E+02
Calcium	7440-70-2	NA					4.00E+00	2.80E+00		2.80E+00
Chromium (and VI)	18540-29-9	NA	4.41E+03				1.20E+03	1.80E+00		4.41E+03
Cobalt	7440-48-4	NA					4.50E+01	1.80E-01		1.80E-01
Copper	7440-50-8	NA	5.41E+02				3.50E+01	2.80E+00		5.41E+02
Iron	7439-89-6	NA					2.50E+01	2.00E-02		2.00E-02
Lead	7439-92-1	NA	1.71E+03				9.00E+02	8.10E+00		1.71E+03
Lithium	7439-93-2	NA					3.00E+02	1.50E+00		1.50E+00
Magnesium	7439-95-4	NA					4.50E+00	9.00E-01		9.00E-01
Manganese	7439-96-5	NA					6.50E+01	3.25E+00		3.25E+00
Mercury	7439-97-6	NA	2.48E+04				1.00E+03	7.50E+00		2.48E+04
Molybdenum	7439-98-7	NA					2.00E+01	1.00E+00		1.00E+00
Nickel	7440-02-0	NA	6.10E+01				1.60E+01	1.02E-01		6.10E+01
Potassium	7440-09-7	NA					5.50E+00	1.10E+00		1.10E+00
Rhodium	7440-16-6	NA					6.00E+01	1.80E+00		1.80E+00
Selenium	7782-49-2	NA	1.85E+03				1.80E+01	5.76E-02		1.85E+03
Silicon	7440-21-3	NA					3.00E+01	2.10E+00		2.10E+00
Silver	7440-22-4	NA	1.07E+04				1.00E-01	8.00E-03		1.07E+04
Sodium	7440-23-5	NA					1.00E+02	1.50E+00		1.50E+00
Strontium	7440-24-6	NA					3.50E+01	1.75E+01		1.75E+01
Tantalum	7440-25-7	NA					6.50E+02	1.30E+00		1.30E+00
Thallium	7440-28-0	NA	1.50E+04				4.40E+01	3.52E-02		1.50E+04
Tin	7440-31-5	NA					2.50E+02	1.50E+00		1.50E+00
Tungsten	7440-33-7	NA					1.50E+02	1.35E+00		1.35E+00
Uranium	7440-61-1	NA					4.50E+02	7.65E-01		7.65E-01
Vanadium	7440-62-2	NA					1.00E+03	1.10E+00		1.10E+00

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP[b]	WP Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance WP	Soil Kd[d]	SAIC Computed WP[e]	Comments	Recommended WP[f]
Yttrium	7440-65-5	NA					5.00E+02	1.50E+00		1.50E+00
Zinc	7440-66-6	NA	2.18E+03				6.20E+01	1.49E-11		2.18E+03
Zirconium	7440-67-7	NA					3.00E+03	1.20E+00		1.20E+00
Non-metals and Anions										
Ammonia/Ammonium	7664-41-7	NA					No Kd	1.00E+00	Default	1.00E+00
Bromide	24959-67-9	NA					7.50E+00	2.25E+00		2.25E+00
Chloride	16887-00-6	NA					2.50E-01	3.50E+00		3.50E+00
Cyanide	57-12-5	NA	2.20E+01				No Kd	1.00E+00	Default	1.00E+00
Fluoride	16984-48-8	NA					1.50E+02	1.80E+00		1.80E+00
Hydroxide	14280-30-9	NA	NA				No Kd	NA	Depends on pH	NA
Iodine	7553-56-2	NA					6.00E+01	1.80E+00		1.80E+00
Nitrate	14797-55-8	NA					No Kd	1.00E+00	Default	1.00E+00
Nitrite	14797-65-0	NA					No Kd	1.00E+00	Default	1.00E+00
Phosphate	14265-44-2	NA					3.50E+00	2.45E+00		2.45E+00
Phosphorus	7723-14-0	NA					3.50E+00	2.45E+00		2.45E+00
Sulfate	14808-79-8	NA					No Kd	1.00E+00	Default	1.00E+00
Total Sulfur	63705-05-5	NA					7.50E+00	2.25E+00		2.25E+00
Priority Pollutants										
Carbon Dioxide	124-38-9	NA					No Kd	1.00E+00	Default	1.00E+00
Nitrogen Dioxide	10102-44-0	NA					No Kd	1.00E+00	Default	1.00E+00
Ozone	10028-15-6	NA					No Kd	1.00E+00	Default	1.00E+00
Particulate Matter	No CAS #	NA	NA				No Kd	1.00E+00	Default	1.00E+00
Sulfur Dioxode	7446-09-5	NA					No Kd	1.00E+00	Default	1.00E+00
Radionuclides										
Americium-241	1596-10-2	NA					7.00E+02	7.70E-01		7.70E-01
Antimony-125	14234-35-6	NA	1.48E+03				4.50E+01	1.80E+00		1.48E+03
Barium-137	13981-97-0	NA	2.60E+02				6.00E+01	1.80E+00		2.60E+02
Cadmium-113	None	NA	7.82E+02				6.50E+00	7.15E-01		7.82E+02
Cesium-134	13967-70-9	NA					1.00E+03	1.60E+01		1.60E+01
Cesium-137	10045-97-3	NA					1.00E+03	1.60E+01		1.60E+01

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Europium-154	15585-10-1	NA					6.50E+02	1.30E+00		1.30E+00
Europium-155	14391-16-3	NA					6.50E+02	1.30E+00		1.30E+00
Nickel-63	13981-37-8	NA	6.10E+01				1.50E+02	1.80E+00		6.10E+01
Plutonium-239	15117-48-3	NA					4.50E+03	4.05E-01		4.05E-01
Plutonium-241	14119-32-5	NA					4.50E+03	4.05E-01		4.05E-01
Samarium-151	15715-94-3	NA					6.50E+02	1.30E+00		1.30E+00
Strontium-90	10098-97-2	NA					3.50E+01	1.75E+01		1.75E+01
Technetium-99	14133-79-7	NA					1.50E+00	2.85E+00		2.85E+00
Tritium	10028-17-8	NA						1.00E+00	Default	1.00E+00
Yttrium-90	10098-91-6	NA					5.00E+02	1.50E+00		1.50E+00
Uranium-232	14158-29-3	NA					4.50E+02	7.65E-01		7.65E-01
Uranium-233	13968-55-3	NA					4.50E+02	7.65E-01		7.65E-01
Uranium-234	13966-29-5	NA					4.50E+02	7.65E-01		7.65E-01
Uranium-235	15117-96-1	NA					4.50E+02	7.65E-01		7.65E-01
Uranium-236	13982-70-2	NA					4.50E+02	7.65E-01		7.65E-01
Uranium-238	7440-61-1	NA					4.50E+02	7.65E-01		7.65E-01
Actinium-227	14952-40-0	NA					1.50E+03	1.05E+00		1.05E+00
Americium-243	14993-75-0	NA					7.00E+02	7.70E-01		7.70E-01
Carbon-14	14762-75-5	NA						1.00E+00	Default	1.00E+00
Cobalt-60	10198-40-0	NA					4.50E+01	1.80E-01		1.80E-01
Curium-242	15510-73-3	NA					2.00E+03	3.40E-01		3.40E-01
Curium-243	15757-87-6	NA					2.00E+03	3.40E-01		3.40E-01
Curium-244	13981-15-2	NA					2.00E+03	3.40E-01		3.40E-01
Europium-152	14683-23-9	NA					6.50E+02	1.30E+00		1.30E+00
Iodine-129	15046-84-1	NA					6.00E+01	1.80E+00		1.80E+00
Neptunium-237	13994-20-2	NA					3.00E+01	6.00E-01		6.00E-01
Nickel-59	14336-70-0	NA	6.10E+01				1.50E+02	9.60E-01		6.10E+01
Niobium-93	None	NA					3.50E+02	1.40E+00		1.40E+00
Plutonium-238	13981-16-3	NA					4.50E+03	4.05E-01		4.05E-01
Plutonium-240	14119-33-6	NA					4.50E+03	4.05E-01		4.05E-01

Table C2-6. Aquatic Water-to-Plant Transfer Factors (WP) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) WP [b]	WP Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance WP	Soil Kd [d]	SAIC Computed WP [e]	Comments	Recommended WP [f]
Plutonium-242	13982-10-0	NA					4.50E+07	4.05E+03		4.05E+03
Protactinium-231	14331-85-2	NA					2.50E+03	1.25E+00		1.25E+00
Radium-226	13982-63-3	NA					4.50E+02	1.35E+00		1.35E+00
Radium-228	15262-20-1	NA					4.50E+02	1.35E+00		1.35E+00
Ruthenium-106	13967-48-1	NA					3.50E+02	5.25E+00		5.25E+00
Selenium-79	None	NA	1.85E+03				3.00E+02	1.50E+00		1.85E+03
Thorium-229	15594-54-4	NA					1.50E+05	2.55E+01		2.55E+01
Thorium-232	7440-29-1	NA					1.50E+05	2.55E+01		2.55E+01
Tin-126	15832-50-5	NA					2.50E+02	1.50E+00		1.50E+00
Zirconium-93	15751-77-6	NA					3.00E+03	1.20E+00		1.20E+00

NA = Not applicable

[a] $\log_{10}$ of K_{ow} values in Table 4.1

[b] Data published in Appendix C, Table C-4 of EPA (1999)

[c] Calculated or chosen as described in Appendix C, Sect. C-1.4 of EPA (1999)

[d] Soil Kd values from Appendix B Table B-1-1 or from Baes and others. (1984) Fig. 2.31 for radionuclides and other elements not shown in Appendix B Table B-1-1

[e] Calculated by using the Kd and the recommended SPv values for plants in soil (Table C.2-1): WP = SPv x Kd

[f] Selection criteria described in Sect. 8.2.4.4

[g] Calculated by using log K_{ow}: log WP = 0.819 x log K_{ow} -1.146 (Southworth, Beauchamp, and Schmieder 1978)

[h] Calculated by using the WP for TCDD from Appendix C, Table C-4 of EPA (1999) and BEFs for other congeners

[i] Value for Aroclor 1254 from Appendix C of EPA (1999), Table C-4, was used for PCB mixtures

[j] Benzo(a)pyrene value from Appendix C of EPA (1999), Table C-4, was used as a surrogate value

[k] 2,4-dinitrotoluene value from Appendix C of EPA (1999), Table C-4, was used as a surrogate value

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Organic Compounds											
Aromatic Halogenated Hydrocarbons											
4-Chloro-3-methylphenol	59-50-7	3.10		1.25E-01	h		6.03E+00	2.41E+01	3.13E-02		3.13E-02
2,3,4,6-Tetrachlorophenol	58-90-2	4.42		2.16E-02	h		6.61E+01	2.64E+02	5.40E-03		5.40E-03
Aromatic Nonhalogenated Hydrocarbons											
2-Nitrotoluene	88-72-2	2.30		3.63E-01	h		4.27E+00	1.71E+01	9.07E-02		9.07E-02
4-Nitrobiphenyl	92-93-3	3.77		5.13E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Benzaldehyde	100-52-7	1.48		1.08E+00	h		2.01E-01	8.04E-01	2.71E-01		2.71E-01
Benzene	71-43-2	-4.99		5.94E+03	h		6.20E+01	4.65E+00	7.92E+04		7.92E+04
Benzyl alcohol	100-51-6	1.10		1.79E+00	h		1.02E-01	4.09E-01	4.47E-01		4.47E-01
Ethyl benzene	100-41-4	3.12		1.21E-01	h		2.04E+00	8.16E+00	3.03E-02		3.03E-02
m-Xylene	108-38-3	3.20		1.09E-01	h		1.96E+00	7.84E+00	2.73E-02		2.73E-02
o-Xylene	95-47-6	3.13		1.20E-01	h		2.41E+00	9.64E+00	3.00E-02		3.00E-02
p-Xylene	106-42-3	3.17		1.14E-01	h		3.11E+00	1.24E+01	2.86E-02		2.86E-02
Styrene	100-42-5	2.93		1.57E-01	h		9.12E+00	3.65E+01	3.92E-02		3.92E-02
Toluene	108-88-3	2.67		2.22E-01	h		1.40E+00	5.60E+00	5.56E-02		5.56E-02
Non-aromatic Nonhalogenated Hydrocarbons											
1,2-Epoxybutane	106-88-7	1.44		1.14E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
1,3-Butadiene	106-99-0	1.90		6.18E-01	h		7.41E-01	2.96E+00	1.54E-01		1.54E-01
1,4-Dioxane	123-91-1	-0.27	5.53E+01	1.11E+01	k		8.76E-03	3.50E-02	2.77E+00		2.77E+00
1-Methylpropyl alcohol	78-92-2	0.61		3.44E+00	h		4.00E-02	1.60E-01	8.60E-01		8.60E-01
1-Nitropropane	108-03-2	0.87		2.43E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,2,4-Trimethylpentane	540-84-1	5.02		9.72E-03	h		8.64E+02	3.46E+03	2.43E-03		2.43E-03
2-Butanone	78-93-3	0.28		5.33E+00	h		2.34E-02	9.36E-02	1.33E+00		1.33E+00
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
2-Ethoxyethanol	110-80-5	-0.10		8.85E+00	h		2.09E-01	8.36E-01	2.21E+00		2.21E+00
2-Heptanone	110-43-0	1.98		5.55E-01	h		8.88E-01	3.55E+00	1.39E-01		1.39E-01
2-Hexanone	591-78-6	1.38		1.23E+00	h		1.34E+00	5.36E+00	3.09E-01		3.09E-01

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
2-Methoxyethanol	109-86-4	0.25		5.54E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2-Methyl-2-propanol	75-65-0	0.35		4.86E+00	h		3.72E-01	1.49E+00	1.22E+00		1.22E+00
2-Methyl-2-propenenitrile	126-98-7	0.54		3.77E+00	h		3.74E-02	1.49E-01	9.47E-01		9.47E-01
2-Methylaziridine	75-55-8	-0.60		1.73E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2-Methylpropyl alcohol	78-83-1	0.76		2.82E+00	h		5.61E-02	2.24E-01	7.04E-01		7.04E-01
2-Pentanone	107-87-9	0.91		2.31E+00	h		7.40E-01	2.96E+00	5.77E-01		5.77E-01
2-Propanone (Acetone)	67-64-1	-0.22	5.20E+01	1.04E+01	k		9.51E-03	3.80E-02	2.60E+00		2.60E+00
2-Propene-1-ol	107-18-6	0.17		6.18E+00	h		1.48E-02	5.90E-02	1.54E+00		1.54E+00
2-Propyl alcohol	67-63-0	0.05		7.25E+00	h		1.12E-02	4.50E-02	1.81E+00		1.81E+00
3-Heptanone	106-35-4	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
3-Methyl-1-butanol	123-51-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
3-Methyl-2-butanone	563-80-4	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
3-Pentanone	96-22-0	0.99		2.07E+00	h		1.20E-01	4.81E-01	5.19E-01		5.19E-01
4-Heptanone	123-19-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
4-Methyl-2-pentanone	108-10-1	1.19		1.59E+00	h		1.20E-01	4.80E-01	3.97E-01		3.97E-01
4-Methyl-3-penten-2-one	141-79-7	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
5-Methyl-2-hexanone	110-12-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Acetaldehyde	75-07-0	-0.22		1.04E+01	h		9.53E-03	3.81E-02	2.60E+00		2.60E+00
Acetamide	60-35-5	-1.26		4.14E+01	h		2.82E-04	1.13E-03	1.04E+01		1.04E+01
Acetic acid	64-19-7	-0.17		9.71E+00	h		1.00E-02	4.00E-02	2.43E+00		2.43E+00
Acetic acid ethyl ester	141-78-6	0.73		2.93E+00	h		2.30E-02	9.18E-02	7.33E-01		7.33E-01
Acetic acid n-butyl ester	123-86-4	1.73		7.75E-01	h		5.04E-01	2.02E+00	1.94E-01		1.94E-01
Acetonitrile	75-05-8	-0.34		1.22E+01	h		7.69E-03	3.07E-02	3.05E+00		3.05E+00
Acrolein	107-02-8	-0.01		7.84E+00	h		1.39E-02	5.57E-02	1.96E+00		1.96E+00
Acrylonitrile	107-13-1	0.25	2.78E+01	5.55E+00	k		2.22E-02	8.88E-02	1.39E+00		1.39E+00
Bis(isopropyl)ether	108-20-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Butane	106-97-8	2.89		1.65E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Carbon disulfide	75-15-0	2.00		5.41E-01	h		5.14E-01	2.06E+00	1.35E-01		1.35E-01

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP[b] (per dry weight of plants)	Calculated from EPA (1999) SP[c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd[d]	Sediment Kd[e]	SAIC Computed SP[f]	Comments	Recommended SP[g]
Cyanogen	460-19-5	0.81		2.64E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Cyclohexane	110-82-7	3.44		7.96E-02	h		4.79E+00	1.91E+01	1.99E-02		1.99E-02
Cyclohexanone	108-94-1	0.81		2.64E+00	h		6.28E-02	2.51E-01	6.59E-01		6.59E-01
Cyclohexene	110-83-8	2.86		1.72E-01	h		6.51E+00	2.60E+01	4.30E-02		4.30E-02
Cyclopentane	287-92-3	3.00		1.43E-01	h		8.93E+00	3.57E+01	3.57E-02		3.57E-02
Ethyl alcohol	64-17-5	0.31		5.13E+00	h		2.03E-02	8.11E-02	1.28E+00		1.28E+00
Ethyl ether	60-29-7	0.89		2.37E+00	h		7.53E-02	3.01E-01	5.92E-01		5.92E-01
Ethyl methacrylate	97-63-2	1.59		9.33E-01	h		2.46E-01	9.80E-01	2.34E-01		2.34E-01
Formaldehyde	50-00-0	0.34	2.46E+01	4.91E+00	k		2.62E-02	1.05E-01	1.23E+00		1.23E+00
Formamide	75-12-7	-1.51		5.78E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Formic acid	64-18-6	-0.54		1.58E+01	h		5.39E-02	2.16E-01	3.95E+00		3.95E+00
Formic acid, methyl ester	107-31-3	-0.26		1.10E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Glycidylaldehyde	765-34-4	-0.73		2.05E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Methyl acetate	79-20-9	0.18		6.10E+00	h		4.80E-02	1.92E-01	1.52E+00		1.52E+00
Methyl alcohol	67-56-1	-0.71		1.99E+01	h		3.96E-03	1.58E-02	4.99E+00		4.99E+00
Methyl isocyanate	624-83-9	No data		No data			No Kd	No Kd	NA	Reacts with water	NA
Methyl methacrylate	80-62-6	0.79		2.71E+00	h		6.31E-01	2.52E+00	6.77E-01		6.77E-01
Methyl tert-butyl ether	1634-04-4	0.94		2.22E+00	h		8.43E-02	3.37E-01	5.54E-01		5.54E-01
Methylacetylene	74-99-7	0.94		2.22E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Methylcyclohexane	108-87-2	4.10		3.31E-02	h		1.08E+02	4.31E+02	8.26E-03		8.26E-03
N,N-Dimethylacetamide	127-19-5	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
n-Butyl alcohol	71-36-3	0.88		2.40E+00	h		7.36E-02	2.95E-01	6.00E-01		6.00E-01
n-Heptane	142-82-5	4.66		1.57E-02	h		3.83E+02	1.53E+03	3.92E-03		3.92E-03
n-Hexane	110-54-3	4.11		3.26E-02	h		1.10E+02	4.41E+02	8.15E-03		8.15E-03
Nitromethane	75-52-5	-0.35		1.23E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
n-Nonane	111-84-2	5.65		4.20E-03	h		3.60E+03	1.44E+04	1.05E-03		1.05E-03
n-Octane	111-65-9	4.00		3.78E-02	h		8.59E+01	3.44E+02	9.44E-03		9.44E-03
n-Pentane	109-66-0	3.21		1.08E-01	h		1.44E+01	5.75E+01	2.70E-02		2.70E-02

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
n-Propionaldehyde	123-38-6	0.59		3.53E+00	h		3.82E-02	1.53E-01	8.83E-01		8.83E-01
n-Propyl alcohol	71-23-8	0.25		5.55E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
n-Valeraldehyde	110-62-3	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Oxirane	75-21-8	-0.30		1.15E+01	h		8.26E-03	3.30E-02	2.89E+00		2.89E+00
p-Cymene	99-87-6	4.10		3.31E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Phosgene	75-44-5	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Propargyl alcohol	107-19-7	0.26		5.48E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Propionic acid	79-09-4	0.33		4.99E+00	h		2.12E-02	8.48E-02	1.25E+00		1.25E+00
Propionitrile	107-12-0	0.16		6.26E+00	h		1.44E-02	5.77E-02	1.56E+00		1.56E+00
Propylene gylcol monomethyl ether	107-98-2	-0.18		9.84E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
p-tert-Butyltoluene	98-51-1	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Triethylamine	121-44-8	0.16		6.26E+00	h		1.44E-02	5.77E-02	1.56E+00		1.56E+00
Trimethylamine	75-50-3	0.16		6.26E+00	h		4.00E-02	1.60E-01	1.56E+00		1.56E+00
Vinyl acetate	108-05-4	0.70		3.06E+00	h		4.97E-02	1.99E-01	7.63E-01		7.63E-01
Non-aromatic Halogenated Hydrocarbons											
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
1,1,1,2-Tetrachloroethane	630-20-6	2.63		2.34E-01	h		1.59E+00	6.37E+00	5.83E-02		5.83E-02
1,1,1-Trichloroethane	71-55-6	2.42		3.09E-01	h		1.35E+03	5.40E+03	7.71E-02		7.71E-02
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	3.73		5.41E-02	h		3.16E+00	1.26E+01	1.35E-02		1.35E-02
1,1,2,2-Tetrachloroethane	79-34-5	4.64		1.60E-02	h		7.90E-01	3.16E+00	4.01E-03		4.01E-03
1,1,2,2-Tetrachloroethene	127-18-4	2.55		2.62E-01	h		2.65E+00	1.06E+01	6.54E-02		6.54E-02
1,1,2-Trichloroethane	79-00-5	2.10		4.75E-01	h		7.50E-01	3.00E+00	1.19E-01		1.19E-01
1,1,2-Trichloroethylene	79-01-6	2.43		3.04E-01	h		9.40E-01	3.76E+00	7.60E-02		7.60E-02
1,1-Dichloroethane	75-34-3	1.79		7.13E-01	h		5.30E-01	2.12E+00	1.78E-01		1.78E-01
1,1-Dichloroethene	75-35-4	2.12		4.61E-01	h		6.50E-01	2.60E+00	1.15E-01		1.15E-01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	3.16		1.15E-01	h		2.57E+00	1.03E+01	2.89E-02		2.89E-02
1,2,3-Trichloropropane	96-18-4	2.25		3.88E-01	h		8.10E-01	3.22E+00	9.75E-02		9.75E-02
1,2-Dibromo-3-chloropropane	96-12-8	2.34		3.44E-01	h		9.47E-01	3.79E+00	8.59E-02		8.59E-02

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	2.82		1.82E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
1,2-Dichloroethane	107-06-2	1.46		1.11E+00	h		1.96E-01	7.83E-01	2.77E-01		2.77E-01
1,2-Dichloroethylene	540-59-0	0.48		4.09E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
1,2-Dichloropropane	78-87-5	2.25		3.88E-01	h		4.70E-01	1.88E+00	9.69E-02		9.69E-02
1,3-Dichloropropene	542-75-6	1.75		7.56E-01	h		2.70E-01	1.08E+00	1.89E-01		1.89E-01
1,4-Dichloro-2-butene	764-41-0	0.87		2.42E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
1-Chloroethene	75-01-4	1.15		1.68E+00	h		1.11E-01	4.44E-01	4.21E-01		4.21E-01
2,2-Dichloropropionic acid	75-99-0	0.78		2.75E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2-Chloropropane	75-29-6	1.90		6.18E-01	h		7.41E-01	2.96E+00	1.54E-01		1.54E-01
3-Chloropropene (allyl chloride)	107-05-1	0.95		2.17E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Bromochloromethane	74-97-5	1.41		1.19E+00	h		2.44E-01	9.77E-01	2.96E-01		2.96E-01
Bromodichloromethane	75-27-4	2.03		5.23E-01	h		5.38E-01	2.15E+00	1.31E-01		1.31E-01
Bromoethene	593-60-2	1.07		1.87E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Bromoform	75-25-2	2.35		3.39E-01	h		1.26E+00	5.04E+00	8.48E-02		8.48E-02
Bromomethane	74-83-9	1.11		1.76E+00	h		9.00E-02	3.60E-01	4.40E-01		4.40E-01
Carbon tetrachloride	56-23-5	2.72	1.04E+00	2.08E-01	k		1.52E+00	6.08E+00	5.20E-02		5.20E-02
Chlorodibromomethane	124-48-1	2.18		4.28E-01	h		7.05E-01	2.82E+00	1.07E-01		1.07E-01
Chlorodifluoromethane	75-45-6	1.08		1.84E+00	h		9.83E-02	3.93E-01	4.61E-01		4.61E-01
Chloroethane	75-00-3	3.10		1.25E-01	h		3.71E+00	1.48E+01	3.13E-02		3.13E-02
Chloroform	67-66-3	1.95	2.90E+00	5.80E-01	k		5.30E+01	2.12E+00	1.45E+01		1.45E+01
Chloromethane	74-87-3	0.90		2.33E+00	h		6.00E-02	2.40E-01	5.82E-01		5.82E-01
Chloropentafluoroethane	76-15-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
cis-1,2-Dichloroethene	156-59-2	1.98		5.54E-01	h		4.98E+00	1.99E+01	1.39E-01		1.39E-01
cis-1,3-Dichloropropene	10061-01-5	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Cyanogen bromide	506-68-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Cyanogen chloride	506-77-4	0.20		5.94E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Dichlorodifluoromethane	75-71-8	2.16		4.38E-01	h		6.85E-01	2.74E+00	1.10E-01		1.10E-01
Dichlorofluoromethane	75-43-4	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Dichloromethane	75-09-2	1.26		1.46E+00	h		1.00E-01	4.00E-01	3.64E-01		3.64E-01
Difluorodibromomethane	75-61-6	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Hexafluoroacetone	684-16-2	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Iodomethane	74-88-4	1.69		8.17E-01	h		4.61E-01	1.84E+00	2.04E-01		2.04E-01
Methylene bromide	74-95-3	1.62		8.97E-01	h		2.60E-01	1.04E+00	2.24E-01		2.24E-01
Pentachloroethane	76-01-7	3.05		1.34E-01	h		1.00E+01	4.00E+01	3.34E-02		3.34E-02
trans-1,2-Dichloroethene	156-60-5	1.98		5.54E-01	h		3.80E-01	1.52E+00	1.38E-01		1.38E-01
trans-1,3-Dichloropropene	10061-02-6	2.06		4.99E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Trichloroacetic acid	76-03-9	1.33		1.32E+00	h		2.04E-01	8.16E-01	3.30E-01		3.30E-01
Trichlorofluoroethane	27154-33-2	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Trichlorofluoromethane	75-69-4	2.53		2.67E-01	h		1.34E+00	5.34E+00	6.69E-02		6.69E-02
Trifluorobromomethane	75-63-8	1.86		6.52E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Dioxin and Furan Compounds											
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	8.20	2.90E-04	5.80E-05	i		9.77E+05	3.91E+06	1.45E-05	h	1.45E-05
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	7.92	6.20E-05	1.24E-05	i		5.13E+05	2.05E+06	3.10E-06	h	3.10E-06
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	7.92	2.20E-03	4.40E-04	i		5.13E+05	2.05E+06	1.10E-04	h	1.10E-04
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	7.79	1.70E-03	3.40E-04	i		3.80E+05	1.52E+06	8.50E-05	h	8.50E-05
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	7.25	4.30E-04	8.60E-05	i		1.10E+05	4.39E+05	2.15E-05	h	2.15E-05
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	7.25	6.70E-04	1.34E-04	i		1.10E+05	4.39E+05	3.36E-05	h	3.36E-05
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	7.25	1.10E-03	2.20E-04	i		1.10E+05	4.39E+05	5.51E-05	h	5.51E-05
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	7.25	7.80E-04	1.56E-04	i		1.10E+05	4.39E+05	3.91E-05	h	3.91E-05
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	7.25	3.50E-03	7.00E-04	i		1.10E+05	4.39E+05	1.75E-04	h	1.75E-04
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	6.64	5.20E-03	1.04E-03	i		2.69E+04	1.08E+05	2.59E-04	h	2.59E-04
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6.79	1.10E-03	2.20E-04	i		3.80E+04	1.52E+05	5.50E-05	h	5.50E-05
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	7.25	3.80E-03	7.60E-04	i		1.10E+05	4.39E+05	1.90E-04	h	1.90E-04
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	6.92	9.00E-03	1.80E-03	i		5.13E+04	2.05E+05	4.50E-04	h	4.50E-04
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	6.64	5.62E-03	1.12E-03	h		2.69E+04	1.08E+05	2.80E-04		2.80E-04
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	6.53	4.50E-03	9.00E-04	i		2.09E+04	8.36E+04	2.25E-04	h	2.25E-04

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Dibenzofuran	132-64-9	4.33		2.43E-02	h		1.81E+02	7.25E+02	6.08E-03		6.08E-03
Octachlorodibenzo(p)dioxin	3268-87-9	8.20	6.70E-05	1.34E-05	i		2.24E+01	8.95E+01	3.35E-06	h	3.35E-06
Octachlorodibenzofuran	39001-02-0	8.78	9.00E-05	1.80E-05	i		3.72E+06	1.49E+07	4.49E-06	h	4.49E-06
PCBs											
Polychlorinated biphenyls (PCBs)[j]	1336-36-3	7.31	1.00E-02	2.00E-03	h		3.09E+03	1.24E+04	5.00E-04		5.00E-04
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	7.08		6.26E-04	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	7.12		5.94E-04	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	7.12		5.94E-04	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	7.41		4.05E-04	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Phthalates											
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	5.20	3.80E-02	7.60E-03	h		1.11E+03	4.44E+03	1.90E-03		1.90E-03
Butylbenzyl phthalate	85-68-7	4.41		2.18E-02	h		1.37E+02	5.50E+02	5.43E-03		5.43E-03
Dibutyl phthalate	84-74-2	4.72		1.45E-02	h		1.57E+01	6.27E+01	3.63E-03		3.63E-03
Diethyl phthalate	84-66-2	4.44		2.11E-02	h		8.20E-01	3.28E+00	5.28E-03		5.28E-03
Dimethylphthalate	131-11-3	1.63		8.81E-01	h		2.66E+00	1.06E+01	2.21E-01		2.21E-01
n-Dioctyl phthalate	117-84-0	9.33	1.57E-04	3.14E-05	h		9.03E+06	3.61E+07	7.85E-06		7.85E-06
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)											
2-Chloronapthalene	91-58-7	4.07		3.45E-02	h		7.14E+01	2.86E+02	8.61E-03		8.61E-03

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
2-Methyl naphthalene	91-57-6	3.86		4.55E-02	h		6.26E+01	2.50E+02	1.14E-02		1.14E-02
5-Nitroacenaphthene	602-87-9	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Acenaphthene	83-32-9	3.96		3.96E-02	h		4.90E+01	1.96E+02	9.89E-03		9.89E-03
Acenaphthylene	208-96-8	4.07		3.44E-02	h		6.76E+01	2.70E+02	8.60E-03		8.60E-03
Anthracene	120-12-7	4.47		2.02E-02	h		2.35E+02	9.40E+02	5.05E-03		5.05E-03
Fluorene	86-73-7	4.18		2.97E-02	h		1.41E+02	5.65E+02	7.43E-03		7.43E-03
Indene	95-13-6	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Naphthalene	91-20-3	3.37		8.70E-02	h		1.19E+01	4.76E+01	2.17E-02		2.17E-02
Phenanthrene	85-01-8	4.55		1.82E-02	h		5.01E+02	2.01E+03	4.53E-03		4.53E-03
Pyrene	129-00-0	5.00		9.98E-03	h		6.80E+02	2.72E+03	2.49E-03		2.49E-03
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)											
3-Methylcholanthrene	56-49-5	7.11		6.02E-04	h		1.51E+04	6.05E+04	1.50E-04		1.50E-04
5-Methylchrysene	3697-24-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Benzo(a)anthracene	56-55-3	5.68	2.02E-02	4.04E-03	h		2.60E+03	1.04E+04	1.01E-03		1.01E-03
Benzo(a)pyrene	50-32-8	6.13	1.11E-02	2.22E-03	h		9.69E+03	3.87E+04	5.56E-04		5.56E-04
Benzo(b)fluoranthene	205-99-2	6.20	1.01E-02	2.02E-03	h		8.36E+03	3.34E+04	5.06E-04		5.06E-04
Benzo(e)pyrene	192-97-2	7.40		4.09E-04	h		1.58E+05	6.34E+05	1.02E-04		1.02E-04
Benzo(g,h,i)perylene	191-24-2	7.10		6.10E-04	h		1.82E+04	7.28E+04	1.52E-04		1.52E-04
Benzo(j)fluoranthene	205-82-3	6.44		1.47E-03	h		2.15E+04	8.60E+04	3.67E-04		3.67E-04
Benzo(k)fluoranthene	207-08-9	6.20	1.01E-02	2.02E-03	h		8.32E+03	3.33E+04	5.05E-04		5.05E-04
Benzo[a,i]pyrene	191-30-0	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Chrysene	218-01-9	5.74	1.87E-02	3.74E-03	h		2.97E+03	1.19E+04	9.33E-04		9.33E-04
Dibenz(a,h)anthracene	53-70-3	6.55	6.40E-03	1.28E-03	h		1.79E+04	7.16E+04	3.20E-04		3.20E-04
Dibenz[a,h]acridine	226-36-8	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dibenz[a,j]acridine	224-42-0	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dibenzo(a,h)fluoranthene	no cas #	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dibenzo[a,e]pyrene	192-65-4	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) SP[b] (per dry weight of plants)	Calculated from EPA (1999) SP[c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd[d]	Sediment Kd[e]	SAIC Computed SP[f]	Comments	Recommended SP[g]
Dibenzo[a,h]pyrene	189-64-0	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dibenzo[a,i]pyrene	189-55-9	7.29		4.74E-04	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Fluoranthene	206-44-0	5.08		8.94E-03	h		4.91E+02	1.96E+03	2.24E-03		2.24E-03
Hexachloronaphthalene	1335-87-1	7.59		3.18E-04	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Indeno(1,2,3-cd)pyrene	193-39-5	6.91	3.90E-03	7.80E-04	h		4.11E+04	1.64E+05	1.95E-04		1.95E-04
Octachloronaphthalene	2234-13-1	6.42		1.51E-03	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Pentachloronaphthalene	1321-64-8	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Tetrachloronaphthalene	1335-88-2	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Trichloronaphthalene	1321-65-9	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Light Substituted Benzene Compounds (MW <200 g/mole)											
1,2,3-Trichlorobenzene	87-61-6	4.05		3.55E-02	h		2.02E+02	8.10E+02	8.87E-03		8.87E-03
1,2,4-Trichlorobenzene	120-82-1	3.99		3.84E-02	h		1.66E+01	6.64E+01	9.59E-03		9.59E-03
1,2,4-Trimethyl benzene	95-63-6	3.65		6.02E-02	h		3.89E+01	1.56E+02	1.50E-02		1.50E-02
1,2-Dichlorobenzene	95-50-1	3.45		7.90E-02	h		3.79E+00	1.52E+01	1.97E-02		1.97E-02
1,3,5-Trimethyl benzene	108-67-8	3.42		8.17E-02	h		1.67E+01	6.69E+01	2.04E-02		2.04E-02
1,3-Dichlorobenzene	541-73-1	3.53		7.06E-02	h		8.03E+01	3.21E+02	1.77E-02		1.77E-02
1,3-Dinitrobenzene	99-65-0	1.49	5.32E+00	1.06E+00	h		2.06E-01	8.25E-01	2.66E-01		2.66E-01
1,4-Dichlorobenzene	106-46-7	3.41		8.26E-02	h		6.16E+00	2.46E+01	2.07E-02		2.07E-02
1,4-Dinitrobenzene	100-25-4	1.50		1.05E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,4,5-Trichlorophenol	95-95-4	3.87		4.49E-02	h		1.13E+01	4.51E+01	1.13E-02		1.13E-02
2,4,6-Trichlorophenol	88-06-2	3.71		5.54E-02	h		2.26E+00	9.05E+00	1.38E-02		1.38E-02
2,4-Dichlorophenol	120-83-2	3.04		1.36E-01	h		1.40E+00	5.58E+00	3.41E-02		3.41E-02
2,4-Dimethylphenol	105-67-9	2.36		3.35E-01	h		1.26E+00	5.04E+00	8.38E-02		8.38E-02
2,4-Dinitrophenol	51-28-5	1.52		1.03E+00	h		1.00E-04	4.00E-04	2.57E-01		2.57E-01
2,4-Dinitrotoluene	121-14-2	2.00	2.72E+00	5.44E-01	h		5.10E-01	2.04E+00	1.36E-01		1.36E-01
2,6-Dinitrotoluene	606-20-2	1.89	3.15E+00	6.30E-01	h		4.19E-01	1.68E+00	1.57E-01		1.57E-01
2-Chlorophenol	95-57-8	2.16		4.36E-01	h		3.87E+00	1.55E+01	1.09E-01		1.09E-01
2-Chlorotoluene	95-49-8	3.54		7.00E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
2-Nitrophenol	88-75-5	1.79		7.15E-01	h		3.53E+00	1.41E+01	1.79E-01		1.79E-01
4,6-Dinitro-o-cresol	534-52-1	2.85		1.74E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
4-Chlorotoluene	106-43-4	3.33		9.21E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
4-Nitrophenol	100-02-7	1.91		6.10E-01	h		4.37E+02	1.75E+01	1.52E+01		1.52E+01
alpha-Methylstyrene	98-83-9	3.46		7.71E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Aniline	62-53-3	0.98		2.10E+00	h		8.23E-02	3.29E-01	5.26E-01		5.26E-01
Benzotrichloride	98-07-7	2.92		1.59E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Benzyl chloride	100-44-7	0.36		4.79E+00	h		2.71E-02	1.08E-01	1.20E+00		1.20E+00
Bromobenzene	108-86-1	2.99		1.45E-01	h		4.47E+00	1.79E+01	3.62E-02		3.62E-02
Chlorobenzene	108-90-7	2.79		1.89E-01	h		2.24E+00	8.96E+00	4.73E-02		4.73E-02
Cumene	98-82-8	3.61		6.32E-02	h		9.13E+01	3.72E+02	1.55E-02		1.55E-02
m-Cresol	108-39-4	1.96		5.71E-01	h		4.78E-01	1.91E+00	1.43E-01		1.43E-01
n-Butyl benzene	104-51-8	4.28		2.60E-02	h		2.51E+01	1.00E+02	6.50E-03		6.50E-03
Nitrobenzene	98-95-3	1.83	3.38E+00	6.76E-01	h		1.19E+00	4.76E+04	1.69E-05		1.69E-05
n-Propyl benzene	103-65-1	3.69		5.70E-02	h		7.24E+00	2.90E+01	1.43E-02		1.43E-02
o-Cresol	95-48-7	2.02		5.26E-01	h		5.34E-01	2.14E+00	1.31E-01		1.31E-01
o-Dinitrobenzene	528-29-0	1.60		9.21E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
o-Nitroaniline	88-74-4	1.85		6.60E-01	h		3.93E+00	1.57E+01	1.65E-01		1.65E-01
o-Toluidine	95-53-4	1.34		1.30E+00	h		1.57E-01	6.28E-01	3.25E-01		3.25E-01
p-Chloroaniline	106-47-8	1.87		6.44E-01	h		4.06E-01	1.63E+00	1.60E-01		1.60E-01
p-Cresol	106-44-5	1.94		5.86E-01	h		4.61E-01	1.84E+00	1.47E-01		1.47E-01
Phenol	108-95-2	1.48		1.08E+00	h		2.20E-01	8.79E-01	2.71E-01		2.71E-01
p-Nitrochlorobenzene	100-00-5	2.39		3.22E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
p-Toluidine	106-49-0	1.40		1.20E+00	h		2.39E-01	9.56E-01	3.00E-01		3.00E-01
sec-Butyl benzene	135-98-8	4.57		1.77E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
tert-Butyl benzene	98-06-6	4.11		3.26E-02	h		1.10E+02	4.41E+02	8.15E-03		8.15E-03
Toluene-2,6-diamine	823-40-5	1.45		1.12E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Trimethyl benzene	25551-13-7	3.40		8.39E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Other Light Semivolatile Compounds (molecular weight <200 g/mole)											
1,1'-Biphenyl	92-52-4	3.90		4.31E-02	h		2.51E+01	1.00E+02	1.08E-02		1.08E-02
1,1-Dimethylhydrazine	57-14-7	0.60		3.51E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
1,2-Dimethylhydrazine	540-73-8	-1.37		4.78E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
1,2-Diphenylhydrazine	122-66-7	2.94		1.55E-01	h		2.78E+00	1.11E+01	3.88E-02		3.88E-02
1,3-Propane sultone	1120-71-4	-0.52		1.55E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2,4-Toluene diisocyante	584-84-9	No data		No data			No Kd	No Kd	NA	Decomposes rapidly in water	NA
2-Chloroacetophenone	532-27-4	2.59		2.45E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2-Propenoic acid	79-10-7	0.33		4.99E+00	h		2.12E-02	8.48E-02	1.25E+00		1.25E+00
4,4-Methylenedianiline	101-77-9	3.38		8.62E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Acetophenone	98-86-2	1.64		8.73E-01	h		2.69E-01	1.08E+00	2.17E-01		2.17E-01
Benzoic acid	65-85-0	1.86		6.52E-01	h		5.50E-03	2.20E-02	1.63E-01		1.63E-01
bis(2-Chloroethoxy)methane	111-91-1	7.59		3.18E-04	h		2.40E+05	9.60E+05	7.94E-05		7.94E-05
bis(2-Chloroethyl) ether	111-44-4	1.30		1.37E+00	h		7.60E-01	3.04E+00	3.43E-01		3.43E-01
Chlorocyclopentadiene	41851-50-7	2.43		3.05E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Cyclohexanol	108-93-0	1.23		1.51E+00	h		1.30E-01	5.20E-01	3.77E-01		3.77E-01
Dichloroisopropyl ether	108-60-1	2.58		2.50E-01	h		6.10E-01	2.44E+00	6.25E-02		6.25E-02
Dichloromethyl ether	542-88-1	-0.38		1.28E+01	h		7.94E-01	3.18E+00	3.21E+00		3.21E+00
Dichloropentadiene	no cas #	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dimethyl sulfate	77-78-1	0.32		5.07E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Dimethylaniline	121-69-7	-0.88		2.50E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Di-n-propylnitrosamine	621-64-7	1.38		1.23E+00	h		1.70E-01	6.80E-01	3.08E-01		3.08E-01
Diphenyl ether	101-84-8	4.21		2.86E-02	h		1.38E+02	5.53E+02	7.14E-03		7.14E-03
Epichlorohydrin	106-89-8	0.25		5.55E+00	h		2.22E-02	8.88E-02	1.39E+00		1.39E+00
Ethyl carbamate (urethane)	51-79-6	-0.15		9.46E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Ethyl methanesulfonate	62-50-0	0.05		7.25E+00	h		1.55E-02	6.19E-02	1.82E+00		1.82E+00
Ethylene dibromide	106-93-4	1.75		7.55E-01	h		3.28E-01	1.31E+00	1.89E-01		1.89E-01
Ethylene glycol	107-21-1	-0.91		2.62E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Ethylene glycol monobutyl ether	111-76-2	1.55		9.78E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Ethylene glycol monoethyl ether acetate	111-15-9	0.62		3.40E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Ethylene thiourea	96-45-7	-0.64		1.82E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Furfural	98-01-1	0.96		2.16E+00	h		8.82E-02	3.53E-01	5.40E-01		5.40E-01
Maleic hydrazide	123-33-1	-0.74		2.07E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Malononitrile	109-77-3	0.04		7.34E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Methyl styrene (mixed isomers)	25013-15-4	3.35		8.97E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Methylhydrazine	60-34-4	-1.06		3.17E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
N,N-Diphenylamine	122-39-4	3.50		7.35E-02	h		3.47E+00	1.39E+01	1.84E-02		1.84E-02
Nitric acid, propyl ester	627-13-4	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
N-Nitrosodi-n-butylamine	924-16-3	2.41		3.13E-01	h		1.07E+00	4.29E+00	7.82E-02		7.82E-02
N-Nitrosomorpholine	59-89-2	0.98		2.10E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
N-Nitroso-N,N-dimethylamine	62-75-9	-0.47		1.45E+01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
o-Anisidine	90-04-0	1.18		1.61E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Oxalic acid	144-62-7	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Phthalic anhydride	85-44-9	-0.60		1.73E+01	h		4.80E-03	1.92E-02	4.31E+00		4.31E+00
p-Phthalic acid	100-21-0	0.82		2.59E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Pyridine	110-86-1	0.67		3.17E+00	h		4.72E-02	1.89E-01	7.93E-01		7.93E-01
Quinoline	91-22-5	2.03		5.20E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Quinone	106-51-4	0.20		5.94E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Safrole	94-59-7	2.66		2.25E-01	h		1.68E+00	6.73E+00	5.61E-02		5.61E-02
Tetrahydrofuran	109-99-9	0.45		4.27E+00	h		3.16E-02	1.26E-01	1.07E+00		1.07E+00
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)											
1,2,4,5-Tetrachlorobenzene	95-94-3	4.64		1.61E-02	h		5.89E+01	2.36E+02	4.02E-03		4.02E-03
1,3,5-Trinitrobenzene	99-35-4	1.18		1.61E+00	h		1.18E-01	4.72E-01	4.03E-01		4.03E-01
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	4.17		3.01E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	-2.70		2.82E+02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
2-sec-Butyl-4,6-dinitrophenol	88-85-7	3.14		1.19E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
3,3'-Dimethoxybenzidine	119-90-4	1.81		6.96E-01	h		3.65E-01	1.46E+00	1.74E-01		1.74E-01
3,3-Dichlorobenzidine	91-94-1	3.58		6.65E-02	h		8.70E+00	3.48E+01	1.66E-02		1.66E-02
4-Bromophenylphenyl ether	101-55-3	5.00		9.98E-03	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Ammonium perfluorooctanoate	3825-26-1	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Azobenzene	103-33-3	3.82		4.80E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Captan	133-06-2	2.35		3.39E-01	h		2.00E+00	7.98E+00	8.49E-02		8.49E-02
Chlorobenzilate	510-15-6	4.38		2.28E-02	h		3.69E+01	1.48E+02	5.68E-03		5.68E-03
Dibutylphosphate	107-66-4	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Dimethyl aminoazobenzene	60-11-7	4.58		1.74E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Hexachlorobenzene	118-74-1	5.50	2.55E-02	5.10E-03	k		8.00E+02	3.20E+03	1.28E-03		1.28E-03
Hexachlorobutadiene	87-68-3	4.73	7.14E-02	1.43E-02	k		6.94E+01	2.77E+02	3.58E-03		3.58E-03
Hexachlorocyclopentadiene	77-47-4	5.04	5.65E-02	1.13E-02	k		9.51E+01	3.80E+02	2.83E-03		2.83E-03
Hexachloroethane	67-72-1	3.98		3.85E-02	h		1.82E+01	7.27E+01	9.64E-03		9.64E-03
Hexachlorophene	70-30-4	7.54		3.39E-04	h		1.08E+04	4.31E+04	8.50E-05		8.50E-05
Hexamethylene-1,5-diisocyanate	822-06-0	1.27		1.42E+00	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Mirex	2385-85-5	6.89		8.07E-04	h		1.00E+04	4.00E+04	2.02E-04		2.02E-04
Nitrofen	1836-75-5	5.53		4.93E-03	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Pentachlorobenzene	608-93-5	5.09	4.40E-02	8.80E-03	k		3.21E+02	1.29E+03	2.19E-03		2.19E-03
Pentachloronitrobenzene	82-68-8	4.64	8.00E-02	1.61E-02	k		5.89E+01	2.36E+02	4.02E-03		4.02E-03
Pentachlorophenol	87-86-5	5.08	4.49E-02	8.98E-03	k		1.99E+02	7.97E+02	2.25E-03		2.25E-03
Picric acid	88-89-1	2.03		5.20E-01	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Pronamide	23950-58-5	3.51		7.24E-02	h		7.74E+00	3.10E+01	1.81E-02		1.81E-02
Strychnine	57-24-9	1.93		5.94E-01	h		4.53E-01	1.81E+00	1.49E-01		1.49E-01
Terphenyls	26140-60-3	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00
Tributyl phosphate	126-73-8	4.00		3.78E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Trifluralin	1582-09-8	5.34		6.35E-03	h		6.03E+01	2.41E+02	1.59E-03		1.59E-03
Triphenylamine	603-34-9	No data		No data			No Kd	No Kd	1.00E+00	Default	1.00E+00

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) SP[b] (per dry weight of plants)	Calculated from EPA (1999) SP[c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd[d]	Sediment Kd[e]	SAIC Computed SP[f]	Comments	Recommended SP[g]
Herbicides and Organochlorinated Pesticides											
2,4,5-T	93-76-5	3.36		8.85E-02	h		5.25E-01	2.10E+00	2.21E-02		2.21E-02
2,4-D and esters	94-75-7	2.81		1.84E-01	h		2.00E-01	7.98E-01	4.60E-02		4.60E-02
4,4-DDD	72-54-8	6.20		2.02E-03	h		1.00E+03	4.00E+03	5.05E-04		5.05E-04
4,4-DDE	72-55-9	6.26	9.37E-03	1.87E-03	k		8.64E+06	3.46E+03	4.68E+00		4.68E+00
4,4-DDT	50-29-3	6.00		2.64E-03	h		2.40E+03	9.60E+03	6.59E-04		6.59E-04
Aldrin	309-00-2	6.18		2.08E-03	h		4.87E+02	1.95E+03	5.19E-04		5.19E-04
alpha-BHC	319-84-6	3.80		4.93E-02	h		1.76E+01	7.05E+01	1.23E-02		1.23E-02
beta-BHC	319-85-7	3.83		4.71E-02	h		2.14E+01	8.56E+01	1.18E-02		1.18E-02
Chlordane	57-74-9	5.94		2.87E-03	h		5.13E+02	2.05E+03	7.17E-04		7.17E-04
Delta-BHC	319-86-8	4.14		3.13E-02	h		6.61E+00	2.64E+01	7.84E-03		7.84E-03
Dieldrin	60-57-1	5.27		6.97E-03	h		2.55E+02	1.02E+03	1.74E-03		1.74E-03
Endothall	145-73-3	-0.87		2.47E+01	h		1.40E-03	5.61E-03	6.16E+00		6.16E+00
Endrin	72-20-8	4.89		1.15E-02	h		1.08E+02	4.32E+02	2.88E-03		2.88E-03
gamma-BHC (Lindane)	58-89-9	3.72		5.48E-02	h		1.07E+01	4.29E+01	1.37E-02		1.37E-02
Heptachlor	76-44-8	5.02	4.89E-02	9.78E-03	k		9.53E+01	3.81E+02	2.45E-03		2.45E-03
Isodrin	465-73-6	3.55		6.87E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Methoxychlor	72-43-5	4.53		1.87E-02	h		8.00E+02	3.20E+03	4.69E-03		4.69E-03
Silvex (2,4,5-TP)	93-72-1	4.07		3.43E-02	h		No Kd	No Kd	1.00E+00	Default	1.00E+00
Toxaphene	8001-35-2	5.50		5.13E-03	h		1.00E+03	4.00E+03	1.28E-03		1.28E-03
Inorganic Chemicals and Compounds											
Metals											
Aluminum	7429-90-5	NA	4.00E-03	8.00E-04	k		1.50E+03	1.50E+03	8.00E-04		8.00E-04
Antimony	7440-36-0	NA	2.00E-01	4.00E-02	k		4.50E+01	4.50E+01	4.00E-02		4.00E-02
Arsenic	7440-38-2	NA	3.60E-02	7.20E-03	k		2.50E+01	2.50E+01	7.20E-03		7.20E-03
Barium	7440-39-3	NA	1.50E-01	3.00E-02	k		1.10E+01	1.10E+01	3.00E-02		3.00E-02
Beryllium	7440-41-7	NA	1.00E-02	2.00E-03	k		2.30E+01	2.30E+01	2.00E-03		2.00E-03
Bismuth	7440-69-9	NA		7.00E-03	l		2.00E+02	2.00E+02	7.00E-03		7.00E-03

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Boron	7440-42-8	NA		8.00E-01	l		3.00E+00	3.00E+00	8.00E-01		8.00E-01
Cadmium	7440-43-9	NA	3.64E-01	7.28E-02	k		1.50E+01	1.50E+01	7.28E-02		7.28E-02
Calcium	7440-70-2	NA		7.00E-01	l		4.00E+00	4.00E+00	7.00E-01		7.00E-01
Chromium (and VI)	18540-29-9	NA	7.50E-03	1.50E-03	k		1.20E+03	1.20E+03	1.50E-03		1.50E-03
Cobalt	7440-48-4	NA		4.00E-03	l		4.50E+01	4.50E+01	4.00E-03		4.00E-03
Copper	7440-50-8	NA	4.00E-01	8.00E-02	k		3.50E+01	3.50E+01	8.00E-02		8.00E-02
Iron	7439-89-6	NA		8.00E-04	l		2.50E+01	2.50E+01	8.00E-04		8.00E-04
Lead	7439-92-1	NA	4.50E-02	9.00E-03	k		9.00E+02	9.00E+02	9.00E-03		9.00E-03
Lithium	7439-93-2	NA		5.00E-03	l		3.00E+02	3.00E+02	5.00E-03		5.00E-03
Magnesium	7439-95-4	NA		2.00E-01	l		4.50E+00	4.50E+00	2.00E-01		2.00E-01
Manganese	7439-96-5	NA		5.00E-02	l		6.50E+01	6.50E+01	5.00E-02		5.00E-02
Mercury	7439-97-6	NA	3.75E-02	7.50E-03	k		1.00E+03	1.00E+03	7.50E-03		7.50E-03
Molybdenum	7439-98-7	NA		5.00E-02	l		2.00E+01	2.00E+01	5.00E-02		5.00E-02
Nickel	7440-02-0	NA	3.20E-02	6.40E-03	k		1.60E+01	1.60E+01	6.40E-03		6.40E-03
Potassium	7440-09-7	NA		2.00E-01	l		5.50E+00	5.50E+00	2.00E-01		2.00E-01
Rhodium	7440-16-6	NA		3.00E-02	l		6.00E+01	6.00E+01	3.00E-02		3.00E-02
Selenium	7782-49-2	NA	1.60E-02	3.20E-03	k		1.80E+01	1.80E+01	3.20E-03		3.20E-03
Silicon	7440-21-3	NA		7.00E-02	l		3.00E+01	3.00E+01	7.00E-02		7.00E-02
Silver	7440-22-4	NA	4.00E-01	8.00E-02	k		1.00E-01	1.00E-01	8.00E-02		8.00E-02
Sodium	7440-23-5	NA		1.50E-02	l		1.00E+02	1.00E+02	1.50E-02		1.50E-02
Strontium	7440-24-6	NA		5.00E-01	l		3.50E+01	3.50E+01	5.00E-01		5.00E-01
Tantalum	7440-25-7	NA		2.00E-03	l		6.50E+02	6.50E+02	2.00E-03		2.00E-03
Thallium	7440-28-0	NA	4.00E-03	8.00E-04	k		4.40E+01	4.40E+01	8.00E-04		8.00E-04
Tin	7440-31-5	NA		6.00E-03	l		2.50E+02	2.50E+02	6.00E-03		6.00E-03
Tungsten	7440-33-7	NA		9.00E-03	l		1.50E+02	1.50E+02	9.00E-03		9.00E-03
Uranium	7440-61-1	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Vanadium	7440-62-2	NA		1.10E-03	l		1.00E+03	1.00E+03	1.10E-03		1.10E-03
Yttrium	7440-65-5	NA		3.00E-03	l		5.00E+02	5.00E+02	3.00E-03		3.00E-03

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Zinc	7440-66-6	NA	1.20E-12	2.40E-13	k		6.20E+01	6.20E+01	2.40E-13		2.40E-13
Zirconium	7440-67-7	NA		4.00E-04	l		3.00E+03	3.00E+03	4.00E-04		4.00E-04
Non-metals and Anions											
Ammonia/Ammonium	7664-41-7	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Bromide	24959-67-9	NA		3.00E-01	l		7.50E+00	7.50E+00	3.00E-01		3.00E-01
Chloride	16887-00-6	NA		1.40E+01	l		2.50E-01	2.50E-01	1.40E+01		1.40E+01
Cyanide	57-12-5	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Fluoride	16984-48-8	NA		1.20E-02	l		1.50E+02	1.50E+02	1.20E-02		1.20E-02
Hydroxide	14280-30-9	NA		NA			No Kd	No Kd	NA		NA
Iodine	7553-56-2	NA		3.00E-02	l		6.00E+01	6.00E+01	3.00E-02		3.00E-02
Nitrate	14797-55-8	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Nitrite	14797-65-0	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Phosphate	14265-44-2	NA		7.00E-01	l		3.50E+00	3.50E+00	7.00E-01		7.00E-01
Phosphorus	7723-14-0	NA		7.00E-01	l		3.50E+00	3.50E+00	7.00E-01		7.00E-01
Sulfate	14808-79-8	NA		3.00E-01	l		No Kd	No Kd	1.00E+00	Default	3.00E-01
Total Sulfur	63705-05-5	NA		3.00E-01	l		7.50E+00	7.50E+00	3.00E-01		3.00E-01
Priority Pollutants											
Carbon Dioxide	124-38-9	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Nitrogen Dioxide	10102-44-0	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Ozone	10028-15-6	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Particulate Matter	No CAS #	NA		NA			No Kd	No Kd	NA		NA
Sulfur Dioxode	7446-09-5	NA		4.37E-01	m		No Kd	No Kd	1.00E+00	Default	4.37E-01
Radionuclides											
Americium-241	1596-10-2	NA		1.10E-03	l		7.00E+02	7.00E+02	1.10E-03		1.10E-03
Antimony-125	14234-35-6	NA		4.00E-02	l		4.50E+01	4.50E+01	4.00E-02		4.00E-02
Barium-137	13981-97-0	NA		3.00E-02	l		6.00E+01	6.00E+01	3.00E-02		3.00E-02
Cadmium-113	None	NA		1.10E-01	l		6.50E+00	6.50E+00	1.10E-01		1.10E-01
Cesium-134	13967-70-9	NA		1.60E-02	l		1.00E+03	1.00E+03	1.60E-02		1.60E-02

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) SP[b] (per dry weight of plants)	Calculated from EPA (1999) SP[c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd[d]	Sediment Kd[e]	SAIC Computed SP[f]	Comments	Recommended SP[g]
Cesium-137	10045-97-3	NA		1.60E-02	l		1.00E+03	1.00E+03	1.60E-02		1.60E-02
Europium-154	15585-10-1	NA		2.00E-03	l		6.50E+02	6.50E+02	2.00E-03		2.00E-03
Europium-155	14391-16-3	NA		2.00E-03	l		6.50E+02	6.50E+02	2.00E-03		2.00E-03
Nickel-63	13981-37-8	NA		1.20E-02	l		1.50E+02	1.50E+02	1.20E-02		1.20E-02
Plutonium-239	15117-48-3	NA		9.00E-05	l		4.50E+03	4.50E+03	9.00E-05		9.00E-05
Plutonium-241	14119-32-5	NA		9.00E-05	l		4.50E+03	4.50E+03	9.00E-05		9.00E-05
Samarium-151	15715-94-3	NA		2.00E-03	l		6.50E+02	6.50E+02	2.00E-03		2.00E-03
Strontium-90	10098-97-2	NA		5.00E-01	l		3.50E+01	3.50E+01	5.00E-01		5.00E-01
Technetium-99	14133-79-7	NA		1.90E+00	l		1.50E+00	1.50E+00	1.90E+00		1.90E+00
Tritium	10028-17-8	NA		4.27E-01	m		No Kd	No Kd	1.00E+00	Default	4.27E-01
Yttrium-90	10098-91-6	NA		3.00E-03	l		5.00E+02	5.00E+02	3.00E-03		3.00E-03
Uranium-232	14158-29-3	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Uranium-233	13968-55-3	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Uranium-234	13966-29-5	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Uranium-235	15117-96-1	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Uranium-236	13982-70-2	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Uranium-238	7440-61-1	NA		1.70E-03	l		4.50E+02	4.50E+02	1.70E-03		1.70E-03
Actinium-227	14952-40-0	NA		7.00E-04	l		1.50E+03	1.50E+03	7.00E-04		7.00E-04
Americium-243	14993-75-0	NA		1.10E-03	l		7.00E+02	7.00E+02	1.10E-03		1.10E-03
Carbon-14	14762-75-5	NA		4.27E-01	m		No Kd	No Kd	1.00E+00	Default	4.27E-01
Cobalt-60	10198-40-0	NA		4.00E-03	l		4.50E+01	4.50E+01	4.00E-03		4.00E-03
Curium-242	15510-73-3	NA		1.70E-04	l		2.00E+03	2.00E+03	1.70E-04		1.70E-04
Curium-243	15757-87-6	NA		1.70E-04	l		2.00E+03	2.00E+03	1.70E-04		1.70E-04
Curium-244	13981-15-2	NA		1.70E-04	l		2.00E+03	2.00E+03	1.70E-04		1.70E-04
Europium-152	14683-23-9	NA		2.00E-03	l		6.50E+02	6.50E+02	2.00E-03		2.00E-03
Iodine-129	15046-84-1	NA		3.00E-02	l		6.00E+01	6.00E+01	3.00E-02		3.00E-02
Neptunium-237	13994-20-2	NA		2.00E-02	l		3.00E+01	3.00E+01	2.00E-02		2.00E-02
Nickel-59	14336-70-0	NA	3.20E-02	6.40E-03	k		1.50E+02	1.50E+02	6.40E-03		6.40E-03

Table C2-7. Aquatic Sediment-to-Plant Transfer Factors (SP) for Ecological Receptors (mg/kg tissue wet weight / mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) SP [b] (per dry weight of plants)	Calculated from EPA (1999) SP [c] (adjusted to wet weight of plants)	Notes	Ecology Guidance SP	Soil Kd [d]	Sediment Kd [e]	SAIC Computed SP [f]	Comments	Recommended SP [g]
Niobium-93	None	NA		4.00E-03	l		3.50E+02	3.50E+02	4.00E-03		4.00E-03
Plutonium-238	13981-16-3	NA		9.00E-05	l		4.50E+03	4.50E+03	9.00E-05		9.00E-05
Plutonium-240	14119-33-6	NA		9.00E-05	l		4.50E+03	4.50E+03	9.00E-05		9.00E-05
Plutonium-242	13982-10-0	NA		9.00E-05	l		4.50E+07	4.50E+07	9.00E-05		9.00E-05
Protactinium-231	14331-85-2	NA		5.00E-04	l		2.50E+03	2.50E+03	5.00E-04		5.00E-04
Radium-226	13982-63-3	NA		3.00E-03	l		4.50E+02	4.50E+02	3.00E-03		3.00E-03
Radium-228	15262-20-1	NA		3.00E-03	l		4.50E+02	4.50E+02	3.00E-03		3.00E-03
Ruthenium-106	13967-48-1	NA		1.50E-02	l		3.50E+02	3.50E+02	1.50E-02		1.50E-02
Selenium-79	None	NA		5.00E-03	l		3.00E+02	3.00E+02	5.00E-03		5.00E-03
Thorium-229	15594-54-4	NA		1.70E-04	l		1.50E+05	1.50E+05	1.70E-04		1.70E-04
Thorium-232	7440-29-1	NA		1.70E-04	l		1.50E+05	1.50E+05	1.70E-04		1.70E-04
Tin-126	15832-50-5	NA		6.00E-03	l		2.50E+02	2.50E+02	6.00E-03		6.00E-03
Zirconium-93	15751-77-6	NA		4.00E-04	l		3.00E+03	3.00E+03	4.00E-04		4.00E-04

NA = Not applicable

[a] $\log_{10}$ of K_{ow} values in Table 4.1

[b] Published in Appendix C of EPA (1999), Table C-2

[c] Calculated or chosen as described in Appendix C, Sect. C-1.2 of EPA (1999), then multiplied by 0.2 to adjust to wet weight of plants

[d] Soil Kd values from Appendix B Table B-1-1 or from Baes and others. (1984) Fig. 2.31 for radionuclides and other elements not shown in Appendix B Table B-1-1

[e] Sediment Kd values from Appendix B Table B-1-1 or soil Kds from Baes and others. (1984) Fig. 2.31 for radionuclides and other elements not shown in Appendix B Table B-1-1

[f] Calculated by using the Kds and the recommended SPv values for plants in soil (Table C.2-1): SP = SPv x Kd(soil)/Kd(sediment)

[g] Selection criteria described in Sect. 8.2.4.4

[h] Wet weight values calculated by using log K_{ow}: log SPv = 1.588 - 0.578 x log K_{ow} (Travis and Arms 1988) for dry weight and multiplying by 0.2 to adjust to wet weight

[i] Calculated from value for TCDD in Appendix C of EPA (1999), Table C-2 by multiplying by BEF, then by 0.2 to adjust to wet weight of plants

[j] Value for Aroclor 1254 from Appendix C of EPA (1999), Table C-2, was used for PCB mixtures and was multiplied by 0.2 to adjust to wet weight of plants

[k] EPA (1999) values published in Table C-2 multiplied by 0.2 to adjust to wet weight of plants

[l] Baes et al. (1984) (Figure 2.1) values multiplied by 0.2 to adjust to wet weight of plants

[m] Average of values for other inorganics as published in Appendix C of EPA (1999), Table C-2

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Organic Compounds									
Aromatic Halogenated Hydrocarbons									
4-Chloro-3-methylphenol	59-50-7	3.10		2.47E+01	e				2.47E+01
2,3,4,6-Tetrachlorophenol	58-90-2	4.42		2.98E+02	e				2.98E+02
Aromatic Nonhalogenated Hydrocarbons									
2-Nitrotoluene	88-72-2	2.30		5.47E+00	e				5.47E+00
4-Nitrobiphenyl	92-93-3	3.77		8.74E+01	e				8.74E+01
Benzaldehyde	100-52-7	1.48		1.16E+00	e				1.16E+00
Benzene	71-43-2	-4.99		5.84E-06	e				5.84E-06
Benzyl alcohol	100-51-6	1.10		5.69E-01	e				5.69E-01
Ethyl benzene	100-41-4	3.12		2.58E+01	e				2.58E+01
m-Xylene	108-38-3	3.20		2.99E+01	e				2.99E+01
o-Xylene	95-47-6	3.13		2.62E+01	e				2.62E+01
p-Xylene	106-42-3	3.17		2.82E+01	e				2.82E+01
Styrene	100-42-5	2.93		1.79E+01	e				1.79E+01
Toluene	108-88-3	2.67		1.09E+01	e				1.09E+01
Non-aromatic Nonhalogenated Hydrocarbons									
1,2-Epoxybutane	106-88-7	1.44		1.08E+00	e				1.08E+00
1,3-Butadiene	106-99-0	1.90		2.57E+00	e				2.57E+00
1,4-Dioxane	123-91-1	-0.27	4.31E-02		e				4.31E-02
1-Methylpropyl alcohol	78-92-2	0.61		2.26E-01	e				2.26E-01
1-Nitropropane	108-03-2	0.87		3.69E-01	e				3.69E-01
2,2,4-Trimethylpentane	540-84-1	5.02		9.23E+02	e				9.23E+02
2-Butanone	78-93-3	0.28		1.21E-01	e				1.21E-01
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data			1.00E+05	Default	1.00E+05
2-Ethoxyethanol	110-80-5	-0.10		5.92E-02	e				5.92E-02
2-Heptanone	110-43-0	1.98		2.99E+00	e				2.99E+00
2-Hexanone	591-78-6	1.38		9.64E-01	e				9.64E-01
2-Methoxyethanol	109-86-4	0.25		1.15E-01	e				1.15E-01

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
2-Methyl-2-propanol	75-65-0	0.35		1.38E-01	e				1.38E-01
2-Methyl-2-propenenitrile	126-98-7	0.54		1.98E-01	e				1.98E-01
2-Methylaziridine	75-55-8	-0.60		2.29E-02	e				2.29E-02
2-Methylpropyl alcohol	78-83-1	0.76		3.00E-01	e				3.00E-01
2-Pentanone	107-87-9	0.91		3.97E-01	e				3.97E-01
2-Propanone (Acetone)	67-64-1	-0.22	5.00E-02		e				5.00E-02
2-Propene-1-ol	107-18-6	0.17		9.85E-02	e				9.85E-02
2-Propyl alcohol	67-63-0	0.05		7.85E-02	e				7.85E-02
3-Heptanone	106-35-4	No data		No data			1.00E+05	Default	1.00E+05
3-Methyl-1-butanol	123-51-3	No data		No data			1.00E+05	Default	1.00E+05
3-Methyl-2-butanone	563-80-4	No data		No data			1.00E+05	Default	1.00E+05
3-Pentanone	96-22-0	0.99		4.62E-01	e				4.62E-01
4-Heptanone	123-19-3	No data		No data			1.00E+05	Default	1.00E+05
4-Methyl-2-pentanone	108-10-1	1.19		6.74E-01	e				6.74E-01
4-Methyl-3-penten-2-one	141-79-7	No data		No data			1.00E+05	Default	1.00E+05
5-Methyl-2-hexanone	110-12-3	No data		No data			1.00E+05	Default	1.00E+05
Acetaldehyde	75-07-0	-0.22		4.72E-02	e				4.72E-02
Acetamide	60-35-5	-1.26		6.64E-03	e				6.64E-03
Acetic acid	64-19-7	-0.17		5.19E-02	e				5.19E-02
Acetic acid ethyl ester	141-78-6	0.73		2.83E-01	e				2.83E-01
Acetic acid n-butyl ester	123-86-4	1.73		1.87E+00	e				1.87E+00
Acetonitrile	75-05-8	-0.34		3.76E-02	e				3.76E-02
Acrolein	107-02-8	-0.01		7.03E-02	e				7.03E-02
Acrylonitrile	107-13-1	0.25	1.15E-01		e				1.15E-01
Bis(isopropyl)ether	108-20-3	No data		No data			1.00E+05	Default	1.00E+05
Butane	106-97-8	2.89		1.66E+01	e				1.66E+01
Carbon disulfide	75-15-0	2.00		3.10E+00	e				3.10E+00
Cyanogen	460-19-5	0.81		3.28E-01	e				3.28E-01
Cyclohexane	110-82-7	3.44		4.69E+01	e				4.69E+01

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Cyclohexanone	108-94-1	0.81		3.29E-01	e				3.29E-01
Cyclohexene	110-83-8	2.86		1.57E+01	e				1.57E+01
Cyclopentane	287-92-3	3.00		2.05E+01	e				2.05E+01
Ethyl alcohol	64-17-5	0.31		1.28E-01	e				1.28E-01
Ethyl ether	60-29-7	0.89		3.83E-01	e				3.83E-01
Ethyl methacrylate	97-63-2	1.59		1.43E+00	e				1.43E+00
Formaldehyde	50-00-0	0.34	1.36E-01		e				1.36E-01
Formamide	75-12-7	-1.51		4.14E-03	e				4.14E-03
Formic acid	64-18-6	-0.54		2.59E-02	e				2.59E-02
Formic acid, methyl ester	107-31-3	-0.26		4.34E-02	e				4.34E-02
Glycidylaldehyde	765-34-4	-0.73		1.80E-02	e				1.80E-02
Methyl acetate	79-20-9	0.18		1.00E-01	e				1.00E-01
Methyl alcohol	67-56-1	-0.71		1.87E-02	e				1.87E-02
Methyl isocyanate	624-83-9	No data		No data				Reacts with water	NA
Methyl methacrylate	80-62-6	0.79		3.17E-01	e				3.17E-01
Methyl tert-butyl ether	1634-04-4	0.94		4.21E-01	e				4.21E-01
Methylacetylene	74-99-7	0.94		4.21E-01	e				4.21E-01
Methylcyclohexane	108-87-2	4.10		1.63E+02	e				1.63E+02
N,N-Dimethylacetamide	127-19-5	No data		No data			1.00E+05	Default	1.00E+05
n-Butyl alcohol	71-36-3	0.88		3.76E-01	e				3.76E-01
n-Heptane	142-82-5	4.66		4.68E+02	e				4.68E+02
n-Hexane	110-54-3	4.11		1.66E+02	e				1.66E+02
Nitromethane	75-52-5	-0.35		3.69E-02	e				3.69E-02
n-Nonane	111-84-2	5.65		3.03E+03	e				3.03E+03
n-Octane	111-65-9	4.00		1.35E+02	e				1.35E+02
n-Pentane	109-66-0	3.21		3.04E+01	e				3.04E+01
n-Propionaldehyde	123-38-6	0.59		2.17E-01	e				2.17E-01
n-Propyl alcohol	71-23-8	0.25		1.14E-01	e				1.14E-01
n-Valeraldehyde	110-62-3	No data		No data			1.00E+05	Default	1.00E+05

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Oxirane	75-21-8	-0.30		4.06E-02	e				4.06E-02
p-Cymene	99-87-6	4.10		1.63E+02	e				1.63E+02
Phosgene	75-44-5	No data		No data			1.00E+05	Default	1.00E+05
Propargyl alcohol	107-19-7	0.26		1.17E-01	e				1.17E-01
Propionic acid	79-09-4	0.33		1.33E-01	e				1.33E-01
Propionitrile	107-12-0	0.16		9.66E-02	e				9.66E-02
Propylene gylcol monomethyl ether	107-98-2	-0.18		5.09E-02	e				5.09E-02
p-tert-Butyltoluene	98-51-1	No data		No data			1.00E+05	Default	1.00E+05
Triethylamine	121-44-8	0.16		9.66E-02	e				9.66E-02
Trimethylamine	75-50-3	0.16		9.66E-02	e				9.66E-02
Vinyl acetate	108-05-4	0.70		2.67E-01	e				2.67E-01
Non-aromatic Halogenated Hydrocarbons									
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data			1.00E+05	Default	1.00E+05
1,1,1,2-Tetrachloroethane	630-20-6	2.63		1.02E+01	e				1.02E+01
1,1,1-Trichloroethane	71-55-6	2.42		6.88E+00	e				6.88E+00
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	3.73		8.11E+01	e				8.11E+01
1,1,2,2-Tetrachloroethane	79-34-5	4.64		4.54E+02	e				4.54E+02
1,1,2,2-Tetrachloroethene	127-18-4	2.55		8.68E+00	e				8.68E+00
1,1,2-Trichloroethane	79-00-5	2.10		3.73E+00	e				3.73E+00
1,1,2-Trichloroethylene	79-01-6	2.43		7.02E+00	e				7.02E+00
1,1-Dichloroethane	75-34-3	1.79		2.10E+00	e				2.10E+00
1,1-Dichloroethene	75-35-4	2.12		3.90E+00	e				3.90E+00
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	3.16		2.77E+01	e				2.77E+01
1,2,3-Trichloropropane	96-18-4	2.25		4.98E+00	e				4.98E+00
1,2-Dibromo-3-chloropropane	96-12-8	2.34		5.90E+00	e				5.90E+00
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	2.82		1.46E+01	e				1.46E+01
1,2-Dichloroethane	107-06-2	1.46		1.13E+00	e				1.13E+00
1,2-Dichloroethylene	540-59-0	0.48		1.77E-01	e				1.77E-01
1,2-Dichloropropane	78-87-5	2.25		4.98E+00	e				4.98E+00

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
1,3-Dichloropropene	542-75-6	1.75		1.93E+00	e				1.93E+00
1,4-Dichloro-2-butene	764-41-0	0.87		3.70E-01	e				3.70E-01
1-Chloroethene	75-01-4	1.15		6.20E-01	e				6.20E-01
2,2-Dichloropropionic acid	75-99-0	0.78		3.10E-01	e				3.10E-01
2-Chloropropane	75-29-6	1.90		2.57E+00	e				2.57E+00
3-Chloropropene (allyl chloride)	107-05-1	0.95		4.32E-01	e				4.32E-01
Bromochloromethane	74-97-5	1.41		1.02E+00	e				1.02E+00
Bromodichloromethane	75-27-4	2.03		3.26E+00	e				3.26E+00
Bromoethene	593-60-2	1.07		5.34E-01	e				5.34E-01
Bromoform	75-25-2	2.35		6.01E+00	e				6.01E+00
Bromomethane	74-83-9	1.11		5.84E-01	e				5.84E-01
Carbon tetrachloride	56-23-5	2.72	1.20E+01		e				1.20E+01
Chlorodibromomethane	124-48-1	2.18		4.33E+00	e				4.33E+00
Chlorodifluoromethane	75-45-6	1.08		5.47E-01	e				5.47E-01
Chloroethane	75-00-3	3.10		2.47E+01	e				2.47E+01
Chloroform	67-66-3	1.95	2.82E+00		e				2.82E+00
Chloromethane	74-87-3	0.90		3.92E-01	e				3.92E-01
Chloropentafluoroethane	76-15-3	No data		No data			1.00E+05	Default	1.00E+05
cis-1,2-Dichloroethene	156-59-2	1.98		3.00E+00	e				3.00E+00
cis-1,3-Dichloropropene	10061-01-5	No data		No data			1.00E+05	Default	1.00E+05
Cyanogen bromide	506-68-3	No data		No data			1.00E+05	Default	1.00E+05
Cyanogen chloride	506-77-4	0.20		1.04E-01	e				1.04E-01
Dichlorodifluoromethane	75-71-8	2.16		4.19E+00	e				4.19E+00
Dichlorofluoromethane	75-43-4	No data		No data			1.00E+05	Default	1.00E+05
Dichloromethane	75-09-2	1.26		7.62E-01	e				7.62E-01
Difluorodibromomethane	75-61-6	No data		No data			1.00E+05	Default	1.00E+05
Hexafluoroacetone	684-16-2	No data		No data			1.00E+05	Default	1.00E+05
Iodomethane	74-88-4	1.69		1.73E+00	e				1.73E+00
Methylene bromide	74-95-3	1.62		1.52E+00	e				1.52E+00

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Pentachloroethane	76-01-7	3.05		2.25E+01	e				2.25E+01
trans-1,2-Dichloroethene	156-60-5	1.98		3.00E+00	e				3.00E+00
trans-1,3-Dichloropropene	10061-02-6	2.06		3.48E+00	e				3.48E+00
Trichloroacetic acid	76-03-9	1.33		8.78E-01	e				8.78E-01
Trichlorofluoroethane	27154-33-2	No data		No data			1.00E+05	Default	1.00E+05
Trichlorofluoromethane	75-69-4	2.53		8.46E+00	e				8.46E+00
Trifluorobromomethane	75-63-8	1.86		2.38E+00	e				2.38E+00
Dioxin and Furan Compounds									
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	8.20	7.96E+01		f				7.96E+01
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	7.92	1.72E+01		f				1.72E+01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	7.92	6.08E+02		f				6.08E+02
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	7.79	4.84E+02		f				4.84E+02
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	7.25	1.19E+02		f				1.19E+02
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	7.25	1.87E+02		f				1.87E+02
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	7.25	2.96E+02		f				2.96E+02
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	7.25	2.18E+02		f				2.18E+02
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	7.25	9.83E+02		f				9.83E+02
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	6.64	1.44E+03		f				1.44E+03
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6.79	3.43E+02		f				3.43E+02
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	7.25	1.05E+03		f				1.05E+03
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	6.92	2.50E+03		f				2.50E+03
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	6.64	1.56E+03						1.56E+03
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	6.53	1.25E+03		f				1.25E+03
Dibenzofuran	132-64-9	4.33		2.51E+02	e				2.51E+02
Octachlorodibenzo(p)dioxin	3268-87-9	8.20	1.87E+01		f				1.87E+01
Octachlorodibenzofuran	39001-02-0	8.78	2.50E+01		f				2.50E+01
PCBs									
Polychlorinated biphenyls (PCBs)[g]	1336-36-3	7.31	5.54E+03						5.54E+03
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	7.08		4.49E+04	e				4.49E+04

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log $K_{o/w}$ [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	7.12		4.84E+04	e				4.84E+04
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data			1.00E+05	Default	1.00E+05
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data			1.00E+05	Default	1.00E+05
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data			1.00E+05	Default	1.00E+05
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data			1.00E+05	Default	1.00E+05
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data			1.00E+05	Default	1.00E+05
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data			1.00E+05	Default	1.00E+05
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			1.00E+05	Default	1.00E+05
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	7.12		4.84E+04	e				4.84E+04
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	7.41		8.34E+04	e				8.34E+04
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			1.00E+05	Default	1.00E+05
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data			1.00E+05	Default	1.00E+05
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data			1.00E+05	Default	1.00E+05
Phthalates									
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	5.20	3.18E+02						3.18E+02
Butylbenzyl phthalate	85-68-7	4.41		2.94E+02	e				2.94E+02
Dibutyl phthalate	84-74-2	4.72		5.25E+02	e				5.25E+02
Diethyl phthalate	84-66-2	4.44		3.07E+02	e				3.07E+02
Dimethylphthalate	131-11-3	1.63		1.56E+00	e				1.56E+00
n-Dioctyl phthalate	117-84-0	9.33	5.95E+03						5.95E+03
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)									
2-Chloronapthalene	91-58-7	4.07		1.53E+02	e				1.53E+02
2-Methyl naphthalene	91-57-6	3.86		1.04E+02	e				1.04E+02
5-Nitroacenaphthene	602-87-9	No data		No data			1.00E+05	Default	1.00E+05
Acenaphthene	83-32-9	3.96		1.26E+02	e				1.26E+02
Acenaphthylene	208-96-8	4.07		1.54E+02	e				1.54E+02
Anthracene	120-12-7	4.47		3.27E+02	e				3.27E+02
Fluorene	86-73-7	4.18		1.89E+02	e				1.89E+02
Indene	95-13-6	No data		No data			1.00E+05	Default	1.00E+05

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Naphthalene	91-20-3	3.37		4.13E+01	e				4.13E+01
Phenanthrene	85-01-8	4.55		3.81E+02	e				3.81E+02
Pyrene	129-00-0	5.00		8.89E+02	e				8.89E+02
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)									
3-Methylcholanthrene	56-49-5	7.11		4.75E+04	e				4.75E+04
5-Methylchrysene	3697-24-3	No data		No data			1.00E+05	Default	1.00E+05
Benzo(a)anthracene	56-55-3	5.68	1.23E+04						1.23E+04
Benzo(a)pyrene	50-32-8	6.13	4.70E+03						4.70E+03
Benzo(b)fluoranthene	205-99-2	6.20	4.70E+03		h				4.70E+03
Benzo(e)pyrene	192-97-2	7.40		8.21E+04	e				8.21E+04
Benzo(g,h,i)perylene	191-24-2	7.10		4.67E+04	e				4.67E+04
Benzo(j)fluoranthene	205-82-3	6.44		1.34E+04	e				1.34E+04
Benzo(k)fluoranthene	207-08-9	6.20	1.32E+04						1.32E+04
Benzo[a,i]pyrene	191-30-0	No data		No data			1.00E+05	Default	1.00E+05
Chrysene	218-01-9	5.74	9.80E+02						9.80E+02
Dibenz(a,h)anthracene	53-70-3	6.55	7.10E+02						7.10E+02
Dibenz[a,h]acridine	226-36-8	No data		No data			1.00E+05	Default	1.00E+05
Dibenz[a,j]acridine	224-42-0	No data		No data			1.00E+05	Default	1.00E+05
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data			1.00E+05	Default	1.00E+05
Dibenzo(a,h)fluoranthene	no cas #	No data		No data			1.00E+05	Default	1.00E+05
Dibenzo[a,e]pyrene	192-65-4	No data		No data			1.00E+05	Default	1.00E+05
Dibenzo[a,h]pyrene	189-64-0	No data		No data			1.00E+05	Default	1.00E+05
Dibenzo[a,i]pyrene	189-55-9	7.29		6.68E+04	e				6.68E+04
Fluoranthene	206-44-0	5.08		1.04E+03	e				1.04E+03
Hexachloronaphthalene	1335-87-1	7.59		1.18E+05	e				1.18E+05
Indeno(1,2,3-cd)pyrene	193-39-5	6.91	4.70E+03		h				4.70E+03
Octachloronaphthalene	2234-13-1	6.42		1.29E+04	e				1.29E+04
Pentachloronaphthalene	1321-64-8	No data		No data			1.00E+05	Default	1.00E+05
Tetrachloronaphthalene	1335-88-2	No data		No data			1.00E+05	Default	1.00E+05

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Trichloronaphthalene	1321-65-9	No data		No data			1.00E+05	Default	1.00E+05
Light Substituted Benzene Compounds (MW <200 g/mole)									
1,2,3-Trichlorobenzene	87-61-6	4.05		1.47E+02	e				1.47E+02
1,2,4-Trichlorobenzene	120-82-1	3.99		1.32E+02	e				1.32E+02
1,2,4-Trimethyl benzene	95-63-6	3.65		6.97E+01	e				6.97E+01
1,2-Dichlorobenzene	95-50-1	3.45		4.74E+01	e				4.74E+01
1,3,5-Trimethyl benzene	108-67-8	3.42		4.52E+01	e				4.52E+01
1,3-Dichlorobenzene	541-73-1	3.53		5.56E+01	e				5.56E+01
1,3-Dinitrobenzene	99-65-0	1.49	1.30E+01		i				1.30E+01
1,4-Dichlorobenzene	106-46-7	3.41		4.45E+01	e				4.45E+01
1,4-Dinitrobenzene	100-25-4	1.50		1.21E+00	e				1.21E+00
2,4,5-Trichlorophenol	95-95-4	3.87		1.06E+02	e				1.06E+02
2,4,6-Trichlorophenol	88-06-2	3.71		7.83E+01	e				7.83E+01
2,4-Dichlorophenol	120-83-2	3.04		2.20E+01	e				2.20E+01
2,4-Dimethylphenol	105-67-9	2.36		6.12E+00	e				6.12E+00
2,4-Dinitrophenol	51-28-5	1.52		1.25E+00	e				1.25E+00
2,4-Dinitrotoluene	121-14-2	2.00	1.30E+01						1.30E+01
2,6-Dinitrotoluene	606-20-2	1.89	1.30E+01		i				1.30E+01
2-Chlorophenol	95-57-8	2.16		4.21E+00	e				4.21E+00
2-Chlorotoluene	95-49-8	3.54		5.63E+01	e				5.63E+01
2-Nitrophenol	88-75-5	1.79		2.09E+00	e				2.09E+00
4,6-Dinitro-o-cresol	534-52-1	2.85		1.54E+01	e				1.54E+01
4-Chlorotoluene	106-43-4	3.33		3.81E+01	e				3.81E+01
4-Nitrophenol	100-02-7	1.91		2.62E+00	e				2.62E+00
alpha-Methylstyrene	98-83-9	3.46		4.90E+01	e				4.90E+01
Aniline	62-53-3	0.98		4.54E-01	e				4.54E-01
Benzotrichloride	98-07-7	2.92		1.76E+01	e				1.76E+01
Benzyl chloride	100-44-7	0.36		1.41E-01	e				1.41E-01
Bromobenzene	108-86-1	2.99		2.01E+01	e				2.01E+01

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Chlorobenzene	108-90-7	2.79		1.38E+01	e				1.38E+01
Cumene	98-82-8	3.61		6.50E+01	e				6.50E+01
m-Cresol	108-39-4	1.96		2.87E+00	e				2.87E+00
n-Butyl benzene	104-51-8	4.28		2.29E+02	e				2.29E+02
Nitrobenzene	98-95-3	1.83	1.30E+01		i				1.30E+01
n-Propyl benzene	103-65-1	3.69		7.52E+01	e				7.52E+01
o-Cresol	95-48-7	2.02		3.23E+00	e				3.23E+00
o-Dinitrobenzene	528-29-0	1.60		1.46E+00	e				1.46E+00
o-Nitroaniline	88-74-4	1.85		2.34E+00	e				2.34E+00
o-Toluidine	95-53-4	1.34		8.95E-01	e				8.95E-01
p-Chloroaniline	106-47-8	1.87		2.43E+00	e				2.43E+00
p-Cresol	106-44-5	1.94		2.77E+00	e				2.77E+00
Phenol	108-95-2	1.48		1.16E+00	e				1.16E+00
p-Nitrochlorobenzene	100-00-5	2.39		6.48E+00	e				6.48E+00
p-Toluidine	106-49-0	1.40		1.00E+00	e				1.00E+00
sec-Butyl benzene	135-98-8	4.57		3.95E+02	e				3.95E+02
tert-Butyl benzene	98-06-6	4.11		1.66E+02	e				1.66E+02
Toluene-2,6-diamine	823-40-5	1.45		1.11E+00	e				1.11E+00
Trimethyl benzene	25551-13-7	3.40		4.35E+01	e				4.35E+01
Other Light Semivolatile Compounds (molecular weight <200 g/mole)									
1,1'-Biphenyl	92-52-4	3.90		1.12E+02	e				1.12E+02
1,1-Dimethylhydrazine	57-14-7	0.60		2.20E-01	e				2.20E-01
1,2-Dimethylhydrazine	540-73-8	-1.37		5.42E-03	e				5.42E-03
1,2-Diphenylhydrazine	122-66-7	2.94		1.83E+01	e				1.83E+01
1,3-Propane sultone	1120-71-4	-0.52		2.66E-02	e				2.66E-02
2,4-Toluene diisocyante	584-84-9	No data		No data				Decomposes rapidly in water	NA
2-Chloroacetophenone	532-27-4	2.59		9.53E+00	e				9.53E+00
2-Propenoic acid	79-10-7	0.33		1.33E-01	e				1.33E-01
4,4-Methylenedianiline	101-77-9	3.38		4.19E+01	e				4.19E+01

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Acetophenone	98-86-2	1.64		1.58E+00	e				1.58E+00
Benzoic acid	65-85-0	1.86		2.38E+00	e				2.38E+00
bis(2-Chloroethoxy)methane	111-91-1	7.59		1.18E+05	e				1.18E+05
bis(2-Chloroethyl) ether	111-44-4	1.30		8.31E-01	e				8.31E-01
Chlorocyclopentadiene	41851-50-7	2.43		6.99E+00	e				6.99E+00
Cyclohexanol	108-93-0	1.23		7.27E-01	e				7.27E-01
Dichloroisopropyl ether	108-60-1	2.58		9.27E+00	e				9.27E+00
Dichloromethyl ether	542-88-1	-0.38		3.49E-02	e				3.49E-02
Dichloropentadiene	no cas #	No data		No data			1.00E+05	Default	1.00E+05
Dimethyl sulfate	77-78-1	0.32		1.30E-01	e				1.30E-01
Dimethylaniline	121-69-7	-0.88		1.36E-02	e				1.36E-02
Di-n-propylnitrosamine	621-64-7	1.38		9.65E-01	e				9.65E-01
Diphenyl ether	101-84-8	4.21		2.00E+02	e				2.00E+02
Epichlorohydrin	106-89-8	0.25		1.15E-01	e				1.15E-01
Ethyl carbamate (urethane)	51-79-6	-0.15		5.38E-02	e				5.38E-02
Ethyl methanesulfonate	62-50-0	0.05		7.84E-02	e				7.84E-02
Ethylene dibromide	106-93-4	1.75		1.94E+00	e				1.94E+00
Ethylene glycol	107-21-1	-0.91		1.27E-02	e				1.27E-02
Ethylene glycol monobutyl ether	111-76-2	1.55		1.34E+00	e				1.34E+00
Ethylene glycol monoethyl ether acetate	111-15-9	0.62		2.30E-01	e				2.30E-01
Ethylene thiourea	96-45-7	-0.64		2.13E-02	e				2.13E-02
Furfural	98-01-1	0.96		4.37E-01	e				4.37E-01
Maleic hydrazide	123-33-1	-0.74		1.77E-02	e				1.77E-02
Malononitrile	109-77-3	0.04		7.70E-02	e				7.70E-02
Methyl styrene (mixed isomers)	25013-15-4	3.35		3.96E+01	e				3.96E+01
Methylhydrazine	60-34-4	-1.06		9.68E-03	e				9.68E-03
N,N-Diphenylamine	122-39-4	3.50		5.25E+01	e				5.25E+01
Nitric acid, propyl ester	627-13-4	No data		No data			1.00E+05	Default	1.00E+05
N-Nitrosodi-n-butylamine	924-16-3	2.41		6.73E+00	e				6.73E+00

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
N-Nitrosomorpholine	59-89-2	0.98		4.54E-01	e				4.54E-01
N-Nitroso-N,N-dimethylamine	62-75-9	-0.47		2.94E-02	e				2.94E-02
o-Anisidine	90-04-0	1.18		6.61E-01	e				6.61E-01
Oxalic acid	144-62-7	No data		No data			1.00E+05	Default	1.00E+05
Phthalic anhydride	85-44-9	-0.60		2.30E-02	e				2.30E-02
p-Phthalic acid	100-21-0	0.82		3.37E-01	e				3.37E-01
Pyridine	110-86-1	0.67		2.53E-01	e				2.53E-01
Quinoline	91-22-5	2.03		3.29E+00	e				3.29E+00
Quinone	106-51-4	0.20		1.04E-01	e				1.04E-01
Safrole	94-59-7	2.66		1.08E+01	e				1.08E+01
Tetrahydrofuran	109-99-9	0.45		1.66E-01	e				1.66E-01
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)									
1,2,4,5-Tetrachlorobenzene	95-94-3	4.64		4.51E+02	e				4.51E+02
1,3,5-Trinitrobenzene	99-35-4	1.18		6.60E-01	e				6.60E-01
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	4.17		1.86E+02	e				1.86E+02
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	-2.70		4.39E-04	e				4.39E-04
2-sec-Butyl-4,6-dinitrophenol	88-85-7	3.14		2.66E+01	e				2.66E+01
3,3'-Dimethoxybenzidine	119-90-4	1.81		2.17E+00	e				2.17E+00
3,3-Dichlorobenzidine	91-94-1	3.58		6.05E+01	e				6.05E+01
4-Bromophenylphenyl ether	101-55-3	5.00		8.89E+02	e				8.89E+02
Ammonium perfluorooctanoate	3825-26-1	No data		No data			1.00E+05	Default	1.00E+05
Azobenzene	103-33-3	3.82		9.61E+01	e				9.61E+01
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data			1.00E+05	Default	1.00E+05
Captan	133-06-2	2.35		6.01E+00	e				6.01E+00
Chlorobenzilate	510-15-6	4.38		2.76E+02	e				2.76E+02
Dibutylphosphate	107-66-4	No data		No data			1.00E+05	Default	1.00E+05
Dimethyl aminoazobenzene	60-11-7	4.58		4.03E+02	e				4.03E+02
Hexachlorobenzene	118-74-1	5.50	2.60E+03						2.60E+03
Hexachlorobutadiene	87-68-3	4.73	1.05E+01						1.05E+01

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Hexachlorocyclopentadiene	77-47-4	5.04	1.23E+03						1.23E+03
Hexachloroethane	67-72-1	3.98		1.31E+02	e				1.31E+02
Hexachlorophene	70-30-4	7.54		1.07E+05	e				1.07E+05
Hexamethylene-1,5-diisocyanate	822-06-0	1.27		7.89E-01	e				7.89E-01
Mirex	2385-85-5	6.89		3.14E+04	e				3.14E+04
Nitrofen	1836-75-5	5.53		2.42E+03	e				2.42E+03
Pentachlorobenzene	608-93-5	5.09	2.60E+03		j				2.60E+03
Pentachloronitrobenzene	82-68-8	4.64	1.30E+01		i				#REF!
Pentachlorophenol	87-86-5	5.08	5.20E+01						5.20E+01
Picric acid	88-89-1	2.03		3.29E+00	e				3.29E+00
Pronamide	23950-58-5	3.51		5.36E+01	e				5.36E+01
Strychnine	57-24-9	1.93		2.72E+00	e				2.72E+00
Terphenyls	26140-60-3	No data		No data			1.00E+05	Default	1.00E+05
Tributyl phosphate	126-73-8	4.00		1.35E+02	e				1.35E+02
Trifluralin	1582-09-8	5.34		1.69E+03	e				1.69E+03
Triphenylamine	603-34-9	No data		No data			1.00E+05	Default	1.00E+05
Herbicides and Organochlorinated Pesticides									
2,4,5-T	93-76-5	3.36		4.03E+01	e				4.03E+01
2,4-D and esters	94-75-7	2.81		1.43E+01	e				1.43E+01
4,4-DDD	72-54-8	6.20		8.55E+03	e				8.55E+03
4,4-DDE	72-55-9	6.26	1.19E+04						1.19E+04
4,4-DDT	50-29-3	6.00		5.86E+03	e				5.86E+03
Aldrin	309-00-2	6.18		8.21E+03	e				8.21E+03
alpha-BHC	319-84-6	3.80		9.24E+01	e				9.24E+01
beta-BHC	319-85-7	3.83		9.85E+01	e				9.85E+01
Chlordane	57-74-9	5.94		5.21E+03	e				5.21E+03
Delta-BHC	319-86-8	4.14		1.76E+02	e				1.76E+02
Dieldrin	60-57-1	5.27		1.48E+03	e				1.48E+03
Endothall	145-73-3	-0.87		1.39E-02	e				1.39E-02

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Endrin	72-20-8	4.89		7.25E+02	e				7.25E+02
gamma-BHC (Lindane)	58-89-9	3.72		7.96E+01	e				7.96E+01
Heptachlor	76-44-8	5.02	3.81E+03						3.81E+03
Isodrin	465-73-6	3.55		5.77E+01	e				5.77E+01
Methoxychlor	72-43-5	4.53		3.64E+02	e				3.64E+02
Silvex (2,4,5-TP)	93-72-1	4.07		1.55E+02	e				1.55E+02
Toxaphene	8001-35-2	5.50		2.28E+03	e				2.28E+03
Inorganic Chemicals and Compounds									
Metals									
Aluminum	7429-90-5	NA	4.07E+03		k				4.07E+03
Antimony	7440-36-0	NA	7.00E+00						7.00E+00
Arsenic	7440-38-2	NA	7.30E+01						7.30E+01
Barium	7440-39-3	NA	2.00E+02						2.00E+02
Beryllium	7440-41-7	NA	4.50E+01						4.50E+01
Bismuth	7440-69-9	NA		4.07E+03	k				4.07E+03
Boron	7440-42-8	NA		4.07E+03	k				4.07E+03
Cadmium	7440-43-9	NA	3.46E+03						3.46E+03
Calcium	7440-70-2	NA		4.07E+03	k				4.07E+03
Chromium (and VI)	18540-29-9	NA	3.00E+03						3.00E+03
Cobalt	7440-48-4	NA		4.07E+03	k				4.07E+03
Copper	7440-50-8	NA	3.72E+03						3.72E+03
Iron	7439-89-6	NA		4.07E+03	k				4.07E+03
Lead	7439-92-1	NA	5.06E+03						5.06E+03
Lithium	7439-93-2	NA		4.07E+03	k				4.07E+03
Magnesium	7439-95-4	NA		4.07E+03	k				4.07E+03
Manganese	7439-96-5	NA		4.07E+03	k				4.07E+03
Mercury	7439-97-6	NA	2.02E+04						2.02E+04
Molybdenum	7439-98-7	NA		4.07E+03	k				4.07E+03
Nickel	7440-02-0	NA	2.80E+01						2.80E+01

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Potassium	7440-09-7	NA		4.07E+03	k				4.07E+03
Rhodium	7440-16-6	NA		4.07E+03	k				4.07E+03
Selenium	7782-49-2	NA	1.26E+03						1.26E+03
Silicon	7440-21-3	NA		4.07E+03	k				4.07E+03
Silver	7440-22-4	NA	2.98E+02						2.98E+02
Sodium	7440-23-5	NA		4.07E+03	k				4.07E+03
Strontium	7440-24-6	NA		4.07E+03	k				4.07E+03
Tantalum	7440-25-7	NA		4.07E+03	k				4.07E+03
Thallium	7440-28-0	NA	1.50E+04						1.50E+04
Tin	7440-31-5	NA		4.07E+03	k				4.07E+03
Tungsten	7440-33-7	NA		4.07E+03	k				4.07E+03
Uranium	7440-61-1	NA		4.07E+03	k				4.07E+03
Vanadium	7440-62-2	NA		4.07E+03	k				4.07E+03
Yttrium	7440-65-5	NA		4.07E+03	k				4.07E+03
Zinc	7440-66-6	NA	4.58E+03						4.58E+03
Zirconium	7440-67-7	NA		4.07E+03	k				4.07E+03
Non-metals and Anions									
Ammonia/Ammonium	7664-41-7	NA					5.00E+02	Default	5.00E+02
Bromide	24959-67-9	NA		4.07E+03	k				4.07E+03
Chloride	16887-00-6	NA		4.07E+03	k				4.07E+03
Cyanide	57-12-5	NA	4.07E+03		k				4.07E+03
Fluoride	16984-48-8	NA		4.07E+03	k				4.07E+03
Hydroxide	14280-30-9	NA		NA				Depends on pH	NA
Iodine	7553-56-2	NA		4.07E+03	k				4.07E+03
Nitrate	14797-55-8	NA		4.07E+03	k				4.07E+03
Nitrite	14797-65-0	NA		4.07E+03	k				4.07E+03
Phosphate	14265-44-2	NA		4.07E+03	k				4.07E+03
Phosphorus	7723-14-0	NA		4.07E+03	k				4.07E+03
Sulfate	14808-79-8	NA		4.07E+03	k				4.07E+03

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Total Sulfur	63705-05-5	NA		4.07E+03	k				4.07E+03
Priority Pollutants									
Carbon Dioxide	124-38-9	NA		NA					NA
Nitrogen Dioxide	10102-44-0	NA					5.00E+02	Default	5.00E+02
Ozone	10028-15-6	NA					5.00E+02	Default	5.00E+02
Particulate Matter	No CAS #	NA		NA					NA
Sulfur Dioxode	7446-09-5	NA					5.00E+02	Default	5.00E+02
Radionuclides									
Americium-241	1596-10-2	NA		4.07E+03	k				4.07E+03
Antimony-125	14234-35-6	NA	7.00E+00						7.00E+00
Barium-137	13981-97-0	NA	2.00E+02						2.00E+02
Cadmium-113	None	NA	3.46E+03						3.46E+03
Cesium-134	13967-70-9	NA		4.07E+03	k				4.07E+03
Cesium-137	10045-97-3	NA		4.07E+03	k				4.07E+03
Europium-154	15585-10-1	NA		4.07E+03	k				4.07E+03
Europium-155	14391-16-3	NA		4.07E+03	k				4.07E+03
Nickel-63	13981-37-8	NA	2.80E+01						2.80E+01
Plutonium-239	15117-48-3	NA		4.07E+03	k				4.07E+03
Plutonium-241	14119-32-5	NA		4.07E+03	k				4.07E+03
Samarium-151	15715-94-3	NA		4.07E+03	k				4.07E+03
Strontium-90	10098-97-2	NA		4.07E+03	k				4.07E+03
Technetium-99	14133-79-7	NA		4.07E+03	k				4.07E+03
Tritium	10028-17-8	NA		4.07E+03	k				4.07E+03
Yttrium-90	10098-91-6	NA		4.07E+03	k				4.07E+03
Uranium-232	14158-29-3	NA		4.07E+03	k				4.07E+03
Uranium-233	13968-55-3	NA		4.07E+03	k				4.07E+03
Uranium-234	13966-29-5	NA		4.07E+03	k				4.07E+03
Uranium-235	15117-96-1	NA		4.07E+03	k				4.07E+03
Uranium-236	13982-70-2	NA		4.07E+03	k				4.07E+03

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]
Uranium-238	7440-61-1	NA		4.07E+03	k				4.07E+03
Actinium-227	14952-40-0	NA		4.07E+03	k				4.07E+03
Americium-243	14993-75-0	NA		4.07E+03	k				4.07E+03
Carbon-14	14762-75-5	NA		4.07E+03	k				4.07E+03
Cobalt-60	10198-40-0	NA		4.07E+03	k				4.07E+03
Curium-242	15510-73-3	NA		4.07E+03	k				4.07E+03
Curium-243	15757-87-6	NA		4.07E+03	k				4.07E+03
Curium-244	13981-15-2	NA		4.07E+03	k				4.07E+03
Europium-152	14683-23-9	NA		4.07E+03	k				4.07E+03
Iodine-129	15046-84-1	NA		4.07E+03	k				4.07E+03
Neptunium-237	13994-20-2	NA		4.07E+03	k				4.07E+03
Nickel-59	14336-70-0	NA	2.80E+01						2.80E+01
Niobium-93	None	NA		4.07E+03	k				4.07E+03
Plutonium-238	13981-16-3	NA		4.07E+03	k				4.07E+03
Plutonium-240	14119-33-6	NA		4.07E+03	k				4.07E+03
Plutonium-242	13982-10-0	NA		4.07E+03	k				4.07E+03
Protactinium-231	14331-85-2	NA		4.07E+03	k				4.07E+03
Radium-226	13982-63-3	NA		4.07E+03	k				4.07E+03
Radium-228	15262-20-1	NA		4.07E+03	k				4.07E+03
Ruthenium-106	13967-48-1	NA		4.07E+03	k				4.07E+03
Selenium-79	None	NA	1.26E+03						1.26E+03
Thorium-229	15594-54-4	NA		4.07E+03	k				4.07E+03
Thorium-232	7440-29-1	NA		4.07E+03	k				4.07E+03
Tin-126	15832-50-5	NA		4.07E+03	k				4.07E+03
Zirconium-93	15751-77-6	NA		4.07E+03	k				4.07E+03

NA = Not applicable

[a] $\log_{10}$ of K_{ow} values in Table 4.1

[b] Published in Appendix C of EPA (1999), Table C-3

[c] Calculated or chosen as described in Appendix C, Sect. C-1.3 of EPA (1999)

Table C2-8. Aquatic Water-to-Invertebrate Transfer Factors (BCF_{inv}) for Ecological Receptors (mg/kg tissue wet weight / mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{inv} [b]	BCF_{inv} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{inv}	SAIC Compiled BCF_{inv}	Comments	Recommended BCF_{inv} [d]

[d] Selection criteria described in Sect. 8.2.4.4

[c] Calculated by using log K_{ow}: log BCF-I = 0.819 x log K_{ow} -1.146 (Southworth, Beauchamp, and Schmieder 1978)

[f] Calculated by using the BCF_{inv} for TCDD from Appendix C, Table C-3 of EPA (1999) and BEFs for other congeners

[g] Value for Aroclor 1254 from Appendix C of EPA (1999), Table C-3, was used for PCB mixtures

[h] Benzo(a)pyrene value from Appendix C of EPA (1999), Table C-3, was used as a surrogate value

[i] 2,4-dinitrotoluene value from Appendix C of EPA (1999), Table C-3, was used as a surrogate value

[j] Pentachlorobenzene value from Appendix C of EPA (1999), Table C-3, was used as a surrogate value

[k] Average of values for other inorganics as published in Appendix C of EPA (1999), Table C-3

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Organic Compounds										
Aromatic Halogenated Hydrocarbons										
4-Chloro-3-methylphenol	59-50-7	3.10		1.08E+02	e					1.08E+02
2,3,4,6-Tetrachlorophenol	58-90-2	4.42		1.66E+03	e					1.66E+03
Aromatic Nonhalogenated Hydrocarbons										
2-Nitrotoluene	88-72-2	2.30		2.03E+01	e					2.03E+01
4-Nitrobiphenyl	92-93-3	3.77		4.38E+02	e					4.38E+02
Benzaldehyde	100-52-7	1.48		3.62E+00	e					3.62E+00
Benzene	71-43-2	-4.99		4.70E-06	e		3.20E+01	f		4.70E-06
Benzyl alcohol	100-51-6	1.10		1.64E+00	e					1.64E+00
Ethyl benzene	100-41-4	3.12		1.14E+02	e		2.90E+02	f		1.14E+02
m-Xylene	108-38-3	3.20		1.34E+02	e		1.70E+01	f		1.34E+02
o-Xylene	95-47-6	3.13		1.15E+02	e		1.70E+01	f		1.15E+02
p-Xylene	106-42-3	3.17		1.25E+02	e		1.70E+01	f		1.25E+02
Styrene	100-42-5	2.93		7.57E+01	e					7.57E+01
Toluene	108-88-3	2.67		4.38E+01	e		8.30E+01	f		4.38E+01
Non-aromatic Nonhalogenated Hydrocarbons										
1,2-Epoxybutane	106-88-7	1.44		3.35E+00	e					3.35E+00
1,3-Butadiene	106-99-0	1.90		8.77E+00	e					8.77E+00
1,4-Dioxane	123-91-1	-0.27		9.34E-02	e					9.34E-02
1-Methylpropyl alcohol	78-92-2	0.61		5.88E-01	e					5.88E-01
1-Nitropropane	108-03-2	0.87		1.01E+00	e					1.01E+00
2,2,4-Trimethylpentane	540-84-1	5.02		5.29E+03	e					5.29E+03
2-Butanone	78-93-3	0.28		2.95E-01	e		6.00E-01	f		2.95E-01
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data			1.00E+05		Default	1.00E+05
2-Ethoxyethanol	110-80-5	-0.10		1.33E-01	e					1.33E-01
2-Heptanone	110-43-0	1.98		1.04E+01	e					1.04E+01
2-Hexanone	591-78-6	1.38		2.95E+00	e					2.95E+00
2-Methoxyethanol	109-86-4	0.25		2.78E-01	e					2.78E-01

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
2-Methyl-2-propanol	75-65-0	0.35		3.41E-01	e					3.41E-01
2-Methyl-2-propenenitrile	126-98-7	0.54		5.08E-01	e					5.08E-01
2-Methylaziridine	75-55-8	-0.60		4.63E-02	e					4.63E-02
2-Methylpropyl alcohol	78-83-1	0.76		8.05E-01	e					8.05E-01
2-Pentanone	107-87-9	0.91		1.10E+00	e					1.10E+00
2-Propanone (Acetone)	67-64-1	-0.22	1.03E-01		e		2.00E-01	f		1.03E-01
2-Propene-1-ol	107-18-6	0.17		2.34E-01	e					2.34E-01
2-Propyl alcohol	67-63-0	0.05		1.82E-01	e					1.82E-01
3-Heptanone	106-35-4	No data		No data			1.00E+05		Default	1.00E+05
3-Methyl-1-butanol	123-51-3	No data		No data			1.00E+05		Default	1.00E+05
3-Methyl-2-butanone	563-80-4	No data		No data			1.00E+05		Default	1.00E+05
3-Pentanone	96-22-0	0.99		1.30E+00	e					1.30E+00
4-Heptanone	123-19-3	No data		No data			1.00E+05		Default	1.00E+05
4-Methyl-2-pentanone	108-10-1	1.19		1.98E+00	e		6.00E+00	f		1.98E+00
4-Methyl-3-penten-2-one	141-79-7	No data		No data			1.00E+05		Default	1.00E+05
5-Methyl-2-hexanone	110-12-3	No data		No data			1.00E+05		Default	1.00E+05
Acetaldehyde	75-07-0	-0.22		1.03E-01	e					1.03E-01
Acetamide	60-35-5	-1.26		1.17E-02	e					1.17E-02
Acetic acid	64-19-7	-0.17		1.15E-01	e					1.15E-01
Acetic acid ethyl ester	141-78-6	0.73		7.56E-01	e					7.56E-01
Acetic acid n-butyl ester	123-86-4	1.73		6.14E+00	e					6.14E+00
Acetonitrile	75-05-8	-0.34		8.03E-02	e					8.03E-02
Acrolein	107-02-8	-0.01		1.61E-01	e					1.61E-01
Acrylonitrile	107-13-1	0.25	4.80E+01							4.80E+01
Bis(isopropyl)ether	108-20-3	No data		No data			1.00E+05		Default	1.00E+05
Butane	106-97-8	2.89		6.97E+01	e					6.97E+01
Carbon disulfide	75-15-0	2.00		1.08E+01	e					1.08E+01
Cyanogen	460-19-5	0.81		8.89E-01	e					8.89E-01
Cyclohexane	110-82-7	3.44		2.20E+02	e					2.20E+02

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Cyclohexanone	108-94-1	0.81		8.94E-01	e					8.94E-01
Cyclohexene	110-83-8	2.86		6.55E+01	e					6.55E+01
Cyclopentane	287-92-3	3.00		8.78E+01	e					8.78E+01
Ethyl alcohol	64-17-5	0.31		3.13E-01	e					3.13E-01
Ethyl ether	60-29-7	0.89		1.06E+00	e					1.06E+00
Ethyl methacrylate	97-63-2	1.59		4.58E+00	e					4.58E+00
Formaldehyde	50-00-0	0.34	3.35E-01		e					3.35E-01
Formamide	75-12-7	-1.51		6.92E-03	e					6.92E-03
Formic acid	64-18-6	-0.54		5.31E-02	e					5.31E-02
Formic acid, methyl ester	107-31-3	-0.26		9.41E-02	e					9.41E-02
Glycidylaldehyde	765-34-4	-0.73		3.55E-02	e					3.55E-02
Methyl acetate	79-20-9	0.18		2.39E-01	e					2.39E-01
Methyl alcohol	67-56-1	-0.71		3.70E-02	e					3.70E-02
Methyl isocyanate	624-83-9	No data		No data			1.00E+05		Default	1.00E+05
Methyl methacrylate	80-62-6	0.79		8.57E-01	e					8.57E-01
Methyl tert-butyl ether	1634-04-4	0.94		1.17E+00	e					1.17E+00
Methylacetylene	74-99-7	0.94		1.17E+00	e					1.17E+00
Methylcyclohexane	108-87-2	4.10		8.66E+02	e					8.66E+02
N,N-Dimethylacetamide	127-19-5	No data		No data			1.00E+05		Default	1.00E+05
n-Butyl alcohol	71-36-3	0.88		1.03E+00	e					1.03E+00
n-Heptane	142-82-5	4.66		2.68E+03	e					2.68E+03
n-Hexane	110-54-3	4.11		8.84E+02	e					8.84E+02
Nitromethane	75-52-5	-0.35		7.86E-02	e					7.86E-02
n-Nonane	111-84-2	5.65		1.34E+04	e					1.34E+04
n-Octane	111-65-9	4.00		7.05E+02	e					7.05E+02
n-Pentane	109-66-0	3.21		1.36E+02	e					1.36E+02
n-Propionaldehyde	123-38-6	0.59		5.64E-01	e					5.64E-01
n-Propyl alcohol	71-23-8	0.25		2.76E-01	e					2.76E-01
n-Valeraldehyde	110-62-3	No data		No data			1.00E+05		Default	1.00E+05

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Oxirane	75-21-8	-0.30		8.73E-02	e					8.73E-02
p-Cymene	99-87-6	4.10		8.66E+02	e					8.66E+02
Phosgene	75-44-5	No data		No data			1.00E+05		Default	1.00E+05
Propargyl alcohol	107-19-7	0.26		2.82E-01	e					2.82E-01
Propionic acid	79-09-4	0.33		3.27E-01	e					3.27E-01
Propionitrile	107-12-0	0.16		2.29E-01	e					2.29E-01
Propylene gylcol monomethyl ether	107-98-2	-0.18		1.12E-01	e					1.12E-01
p-tert-Butyltoluene	98-51-1	No data		No data			1.00E+05		Default	1.00E+05
Triethylamine	121-44-8	0.16		2.29E-01	e					2.29E-01
Trimethylamine	75-50-3	0.16		2.29E-01	e					2.29E-01
Vinyl acetate	108-05-4	0.70		7.08E-01	e					7.08E-01
Non-aromatic Halogenated Hydrocarbons										
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data			1.00E+05		Default	1.00E+05
1,1,1,2-Tetrachloroethane	630-20-6	2.63		4.05E+01	e					4.05E+01
1,1,1-Trichloroethane	71-55-6	2.42		2.62E+01	e					2.62E+01
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	3.73		4.03E+02	e					4.03E+02
1,1,2,2-Tetrachloroethane	79-34-5	4.64		2.60E+03	e					2.60E+03
1,1,2,2-Tetrachloroethene	127-18-4	2.55		3.39E+01	e		4.40E+01	f		3.39E+01
1,1,2-Trichloroethane	79-00-5	2.10		1.32E+01	e					1.32E+01
1,1,2-Trichloroethylene	79-01-6	2.43		2.68E+01	e		1.70E+01	f		2.68E+01
1,1-Dichloroethane	75-34-3	1.79		7.00E+00	e					7.00E+00
1,1-Dichloroethene	75-35-4	2.12		1.39E+01	e					1.39E+01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	3.16		1.23E+02	e					1.23E+02
1,2,3-Trichloropropane	96-18-4	2.25		1.83E+01	e					1.83E+01
1,2-Dibromo-3-chloropropane	96-12-8	2.34		2.21E+01	e					2.21E+01
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	2.82		6.02E+01	e					6.02E+01
1,2-Dichloroethane	107-06-2	1.46		3.51E+00	e		2.00E+00	f		3.51E+00
1,2-Dichloroethylene	540-59-0	0.48		4.48E-01	e					4.48E-01
1,2-Dichloropropane	78-87-5	2.25		1.83E+01	e					1.83E+01

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
1,3-Dichloropropene	542-75-6	1.75		6.38E+00	e					6.38E+00
1,4-Dichloro-2-butene	764-41-0	0.87		1.02E+00	e					1.02E+00
1-Chloroethene	75-01-4	1.15		1.81E+00	e					1.81E+00
2,2-Dichloropropionic acid	75-99-0	0.78		8.36E-01	e					8.36E-01
2-Chloropropane	75-29-6	1.90		8.77E+00	e					8.77E+00
3-Chloropropene (allyl chloride)	107-05-1	0.95		1.21E+00	e					1.21E+00
Bromochloromethane	74-97-5	1.41		3.14E+00	e					3.14E+00
Bromodichloromethane	75-27-4	2.03		1.14E+01	e					1.14E+01
Bromoethene	593-60-2	1.07		1.53E+00	e					1.53E+00
Bromoform	75-25-2	2.35		2.25E+01	e					2.25E+01
Bromomethane	74-83-9	1.11		1.69E+00	e					1.69E+00
Carbon tetrachloride	56-23-5	2.72	3.00E+01							3.00E+01
Chlorodibromomethane	124-48-1	2.18		1.56E+01	e					1.56E+01
Chlorodifluoromethane	75-45-6	1.08		1.57E+00	e					1.57E+00
Chloroethane	75-00-3	3.10		1.08E+02	e					1.08E+02
Chloroform	67-66-3	1.95	3.59E+00				6.00E+00	f		3.59E+00
Chloromethane	74-87-3	0.90		1.09E+00	e					1.09E+00
Chloropentafluoroethane	76-15-3	No data		No data			1.00E+05		Default	1.00E+05
cis-1,2-Dichloroethene	156-59-2	1.98		1.04E+01	e		8.60E-01	f		1.04E+01
cis-1,3-Dichloropropene	10061-01-5	No data		No data			1.00E+05		Default	1.00E+05
Cyanogen bromide	506-68-3	No data		No data			1.00E+05		Default	1.00E+05
Cyanogen chloride	506-77-4	0.20		2.49E-01	e					2.49E-01
Dichlorodifluoromethane	75-71-8	2.16		1.51E+01	e					1.51E+01
Dichlorofluoromethane	75-43-4	No data		No data			1.00E+05		Default	1.00E+05
Dichloromethane	75-09-2	1.26		2.27E+00	e					2.27E+00
Difluorodibromomethane	75-61-6	No data		No data			1.00E+05		Default	1.00E+05
Hexafluoroacetone	684-16-2	No data		No data			1.00E+05		Default	1.00E+05
Iodomethane	74-88-4	1.69		5.65E+00	e					5.65E+00
Methylene bromide	74-95-3	1.62		4.88E+00	e					4.88E+00

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Pentachloroethane	76-01-7	3.05		9.75E+01	e					9.75E+01
trans-1,2-Dichloroethene	156-60-5	1.98		1.04E+01	e		8.60E-01	f		1.04E+01
trans-1,3-Dichloropropene	10061-02-6	2.06		1.23E+01	e					1.23E+01
Trichloroacetic acid	76-03-9	1.33		2.66E+00	e					2.66E+00
Trichlorofluoroethane	27154-33-2	No data		No data			1.00E+05		Default	1.00E+05
Trichlorofluoromethane	75-69-4	2.53		3.29E+01	e					3.29E+01
Trifluorobromomethane	75-63-8	1.86		8.06E+00	e					8.06E+00
Dioxin and Furan Compounds										
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	8.20	2.16E+02		g					2.16E+02
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	7.92	4.66E+01		g					4.66E+01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	7.92	1.65E+03		g					1.65E+03
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	7.79	1.31E+03		g					1.31E+03
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	7.25	3.22E+02		g					3.22E+02
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	7.25	5.08E+02		g					5.08E+02
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	7.25	8.05E+02		g					8.05E+02
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	7.25	5.93E+02		g					5.93E+02
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	7.25	2.67E+03		g					2.67E+03
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	6.64	3.90E+03		g					3.90E+03
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6.79	9.32E+02		g					9.32E+02
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	7.25	2.84E+03		g					2.84E+03
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	6.92	6.78E+03		g					6.78E+03
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	6.64	4.24E+03							4.24E+03
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	6.53	3.39E+03		g					3.39E+03
Dibenzofuran	132-64-9	4.33		1.39E+03	e		6.90E+02	f		1.39E+03
Octachlorodibenzo(p)dioxin	3268-87-9	8.20	5.08E+01		g					5.08E+01
Octachlorodibenzofuran	39001-02-0	8.78	6.78E+01		g					6.78E+01
PCBs										
Polychlorinated biphenyls (PCBs)[h]	1336-36-3	7.31	2.30E+05							2.30E+05
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	7.08		5.70E+03	e					5.70E+03

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	7.12		5.26E+03	e					5.26E+03
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data			1.00E+05		Default	1.00E+05
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data			1.00E+05		Default	1.00E+05
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data			1.00E+05		Default	1.00E+05
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data			1.00E+05		Default	1.00E+05
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data			1.00E+05		Default	1.00E+05
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data			1.00E+05		Default	1.00E+05
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			1.00E+05		Default	1.00E+05
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	7.12		5.26E+03	e					5.26E+03
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	7.41		2.87E+03	e					2.87E+03
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			1.00E+05		Default	1.00E+05
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data			1.00E+05		Default	1.00E+05
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data			1.00E+05		Default	1.00E+05
Phthalates										
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	5.20	7.00E+01				3.10E+02	f		7.00E+01
Butylbenzyl phthalate	85-68-7	4.41		1.64E+03	e		6.60E+02	f		1.64E+03
Dibutyl phthalate	84-74-2	4.72		3.01E+03	e		5.10E+03	f		3.01E+03
Diethyl phthalate	84-66-2	4.44		1.72E+03	e		1.20E+02	f		1.72E+03
Dimethylphthalate	131-11-3	1.63		5.02E+00	e					5.02E+00
n-Dioctyl phthalate	117-84-0	9.33	9.40E+03				9.30E+03	f		9.40E+03
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)										
2-Chloronapthalene	91-58-7	4.07		8.11E+02	e					8.11E+02
2-Methyl naphthalene	91-57-6	3.86		5.28E+02	e		4.30E+02	f		5.28E+02
5-Nitroacenaphthene	602-87-9	No data		No data			1.00E+05		Default	1.00E+05
Acenaphthene	83-32-9	3.96		6.55E+02	e					6.55E+02
Acenaphthylene	208-96-8	4.07		8.14E+02	e					8.14E+02
Anthracene	120-12-7	4.47		1.84E+03	e		1.40E+03	f		1.84E+03
Fluorene	86-73-7	4.18		1.02E+03	e					1.02E+03
Indene	95-13-6	No data		No data			1.00E+05		Default	1.00E+05

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Naphthalene	91-20-3	3.37		1.91E+02	e		4.30E+02	f		1.91E+02
Phenanthrene	85-01-8	4.55		2.16E+03	e		1.40E+03	f		2.16E+03
Pyrene	129-00-0	5.00		5.10E+03	e		6.10E+03	f		5.10E+03
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)										
3-Methylcholanthrene	56-49-5	7.11		5.37E+03	e					5.37E+03
5-Methylchrysene	3697-24-3	No data		No data			1.00E+05		Default	1.00E+05
Benzo(a)anthracene	56-55-3	5.68	5.00E+02		i		1.30E+04	f		5.00E+02
Benzo(a)pyrene	50-32-8	6.13	5.00E+02				3.00E+01	f		5.00E+02
Benzo(b)fluoranthene	205-99-2	6.20	5.00E+02		i		2.60E+04	f		5.00E+02
Benzo(e)pyrene	192-97-2	7.40		2.92E+03	e					2.92E+03
Benzo(g,h,i)perylene	191-24-2	7.10		5.48E+03	e		6.50E+04	f		5.48E+03
Benzo(j)fluoranthene	205-82-3	6.44		1.48E+04	e					1.48E+04
Benzo(k)fluoranthene	207-08-9	6.20	5.00E+02		i		2.60E+04	f		5.00E+02
Benzo[a,i]pyrene	191-30-0	No data		No data			1.00E+05		Default	1.00E+05
Chrysene	218-01-9	5.74	5.00E+02		i		1.30E+04	f		5.00E+02
Dibenz(a,h)anthracene	53-70-3	6.55	5.00E+02		i		5.40E+04	f		5.00E+02
Dibenz[a,h]acridine	226-36-8	No data		No data			1.00E+05		Default	1.00E+05
Dibenz[a,j]acridine	224-42-0	No data		No data			1.00E+05		Default	1.00E+05
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data			1.00E+05		Default	1.00E+05
Dibenzo(a,h)fluoranthene	no cas #	No data		No data			1.00E+05		Default	1.00E+05
Dibenzo[a,e]pyrene	192-65-4	No data		No data			1.00E+05		Default	1.00E+05
Dibenzo[a,h]pyrene	189-64-0	No data		No data			1.00E+05		Default	1.00E+05
Dibenzo[a,i]pyrene	189-55-9	7.29		3.70E+03	e					3.70E+03
Fluoranthene	206-44-0	5.08		5.91E+03	e		3.20E+03	f		5.91E+03
Hexachloronaphthalene	1335-87-1	7.59		1.90E+03	e					1.90E+03
Indeno(1,2,3-cd)pyrene	193-39-5	6.91	5.00E+02		i		6.50E+04	f		5.00E+02
Octachloronaphthalene	2234-13-1	6.42		1.50E+04	e					1.50E+04
Pentachloronaphthalene	1321-64-8	No data		No data			1.00E+05		Default	1.00E+05
Tetrachloronaphthalene	1335-88-2	No data		No data			1.00E+05		Default	1.00E+05

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Trichloronaphthalene	1321-65-9	No data		No data			1.00E+05		Default	1.00E+05
Light Substituted Benzene Compounds (MW <200 g/mole)										
1,2,3-Trichlorobenzene	87-61-6	4.05		7.74E+02	e					7.74E+02
1,2,4-Trichlorobenzene	120-82-1	3.99		6.88E+02	e					6.88E+02
1,2,4-Trimethyl benzene	95-63-6	3.65		3.41E+02	e					3.41E+02
1,2-Dichlorobenzene	95-50-1	3.45		2.23E+02	e					2.23E+02
1,3,5-Trimethyl benzene	108-67-8	3.42		2.11E+02	e					2.11E+02
1,3-Dichlorobenzene	541-73-1	3.53		2.66E+02	e					2.66E+02
1,3-Dinitrobenzene	99-65-0	1.49	7.40E+01							7.40E+01
1,4-Dichlorobenzene	106-46-7	3.41		2.08E+02	e					2.08E+02
1,4-Dinitrobenzene	100-25-4	1.50		3.79E+00	e					3.79E+00
2,4,5-Trichlorophenol	95-95-4	3.87		5.39E+02	e					5.39E+02
2,4,6-Trichlorophenol	88-06-2	3.71		3.88E+02	e					3.88E+02
2,4-Dichlorophenol	120-83-2	3.04		9.49E+01	e					9.49E+01
2,4-Dimethylphenol	105-67-9	2.36		2.30E+01	e					2.30E+01
2,4-Dinitrophenol	51-28-5	1.52		3.94E+00	e					3.94E+00
2,4-Dinitrotoluene	121-14-2	2.00	2.10E+01		j					2.10E+01
2,6-Dinitrotoluene	606-20-2	1.89	2.10E+01		j		2.60E+01	f		2.10E+01
2-Chlorophenol	95-57-8	2.16		1.52E+01	e					1.52E+01
2-Chlorotoluene	95-49-8	3.54		2.71E+02	e					2.71E+02
2-Nitrophenol	88-75-5	1.79		6.97E+00	e					6.97E+00
4,6-Dinitro-o-cresol	534-52-1	2.85		6.41E+01	e					6.41E+01
4-Chlorotoluene	106-43-4	3.33		1.75E+02	e					1.75E+02
4-Nitrophenol	100-02-7	1.91		8.96E+00	e		1.30E+01	f		8.96E+00
alpha-Methylstyrene	98-83-9	3.46		2.31E+02	e					2.31E+02
Aniline	62-53-3	0.98		1.28E+00	e					1.28E+00
Benzotrichloride	98-07-7	2.92		7.43E+01	e					7.43E+01
Benzyl chloride	100-44-7	0.36		3.49E-01	e					3.49E-01
Bromobenzene	108-86-1	2.99		8.60E+01	e					8.60E+01

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Chlorobenzene	108-90-7	2.79		5.65E+01	e		4.50E+02	f		5.65E+01
Cumene	98-82-8	3.61		3.16E+02	e					3.16E+02
m-Cresol	108-39-4	1.96		9.92E+00	e					9.92E+00
n-Butyl benzene	104-51-8	4.28		1.25E+03	e					1.25E+03
Nitrobenzene	98-95-3	1.83	2.10E+01							2.10E+01
n-Propyl benzene	103-65-1	3.69		3.71E+02	e					3.71E+02
o-Cresol	95-48-7	2.02		1.13E+01	e					1.13E+01
o-Dinitrobenzene	528-29-0	1.60		4.68E+00	e					4.68E+00
o-Nitroaniline	88-74-4	1.85		7.90E+00	e					7.90E+00
o-Toluidine	95-53-4	1.34		2.72E+00	e					2.72E+00
p-Chloroaniline	106-47-8	1.87		8.22E+00	e					8.22E+00
p-Cresol	106-44-5	1.94		9.53E+00	e					9.53E+00
Phenol	108-95-2	1.48		3.62E+00	e		7.80E+02	f		3.62E+00
p-Nitrochlorobenzene	100-00-5	2.39		2.45E+01	e					2.45E+01
p-Toluidine	106-49-0	1.40		3.08E+00	e					3.08E+00
sec-Butyl benzene	135-98-8	4.57		2.25E+03	e					2.25E+03
tert-Butyl benzene	98-06-6	4.11		8.84E+02	e					8.84E+02
Toluene-2,6-diamine	823-40-5	1.45		3.45E+00	e					3.45E+00
Trimethyl benzene	25551-13-7	3.40		2.03E+02	e					2.03E+02
Other Light Semivolatile Compounds (molecular weight <200 g/mole)										
1,1'-Biphenyl	92-52-4	3.90		5.73E+02	e					5.73E+02
1,1-Dimethylhydrazine	57-14-7	0.60		5.75E-01	e					5.75E-01
1,2-Dimethylhydrazine	540-73-8	-1.37		9.31E-03	e					9.31E-03
1,2-Diphenylhydrazine	122-66-7	2.94		7.74E+01	e					7.74E+01
1,3-Propane sultone	1120-71-4	-0.52		5.47E-02	e					5.47E-02
2,4-Toluene diisocyante	584-84-9	No data		No data					Decomposes rapidly in water	NA
2-Chloroacetophenone	532-27-4	2.59		3.76E+01	e					3.76E+01
2-Propenoic acid	79-10-7	0.33		3.27E-01	e					3.27E-01
4,4-Methylenedianiline	101-77-9	3.38		1.94E+02	e					1.94E+02

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Acetophenone	98-86-2	1.64		5.09E+00	e					5.09E+00
Benzoic acid	65-85-0	1.86		8.06E+00	e					8.06E+00
bis(2-Chloroethoxy)methane	111-91-1	7.59		1.90E+03	e					1.90E+03
bis(2-Chloroethyl) ether	111-44-4	1.30		2.50E+00	e					2.50E+00
Chlorocyclopentadiene	41851-50-7	2.43		2.66E+01	e					2.66E+01
Cyclohexanol	108-93-0	1.23		2.15E+00	e					2.15E+00
Dichloroisopropyl ether	108-60-1	2.58		3.64E+01	e					3.64E+01
Dichloromethyl ether	542-88-1	-0.38		7.38E-02	e					7.38E-02
Dichloropentadiene	no cas #	No data		No data			1.00E+05		Default	1.00E+05
Dimethyl sulfate	77-78-1	0.32		3.19E-01	e					3.19E-01
Dimethylaniline	121-69-7	-0.88		2.59E-02	e					2.59E-02
Di-n-propylnitrosamine	621-64-7	1.38		2.95E+00	e					2.95E+00
Diphenyl ether	101-84-8	4.21		1.09E+03	e					1.09E+03
Epichlorohydrin	106-89-8	0.25		2.77E-01	e					2.77E-01
Ethyl carbamate (urethane)	51-79-6	-0.15		1.20E-01	e					1.20E-01
Ethyl methanesulfonate	62-50-0	0.05		1.81E-01	e					1.81E-01
Ethylene dibromide	106-93-4	1.75		6.40E+00	e					6.40E+00
Ethylene glycol	107-21-1	-0.91		2.41E-02	e					2.41E-02
Ethylene glycol monobutyl ether	111-76-2	1.55		4.25E+00	e					4.25E+00
Ethylene glycol monoethyl ether acetate	111-15-9	0.62		5.99E-01	e					5.99E-01
Ethylene thiourea	96-45-7	-0.64		4.27E-02	e					4.27E-02
Furfural	98-01-1	0.96		1.22E+00	e					1.22E+00
Maleic hydrazide	123-33-1	-0.74		3.47E-02	e					3.47E-02
Malononitrile	109-77-3	0.04		1.78E-01	e					1.78E-01
Methyl styrene (mixed isomers)	25013-15-4	3.35		1.82E+02	e					1.82E+02
Methylhydrazine	60-34-4	-1.06		1.78E-02	e					1.78E-02
N,N-Diphenylamine	122-39-4	3.50		2.50E+02	e					2.50E+02
Nitric acid, propyl ester	627-13-4	No data		No data			1.00E+05		Default	1.00E+05
N-Nitrosodi-n-butylamine	924-16-3	2.41		2.55E+01	e					2.55E+01

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
N-Nitrosomorpholine	59-89-2	0.98		1.28E+00	e					1.28E+00
N-Nitroso-N,N-dimethylamine	62-75-9	-0.47		6.11E-02	e					6.11E-02
o-Anisidine	90-04-0	1.18		1.94E+00	e					1.94E+00
Oxalic acid	144-62-7	No data		No data			1.00E+05		Default	1.00E+05
Phthalic anhydride	85-44-9	-0.60		4.64E-02	e					4.64E-02
p-Phthalic acid	100-21-0	0.82		9.17E-01	e					9.17E-01
Pyridine	110-86-1	0.67		6.67E-01	e					6.67E-01
Quinoline	91-22-5	2.03		1.15E+01	e					1.15E+01
Quinone	106-51-4	0.20		2.49E-01	e					2.49E-01
Safrole	94-59-7	2.66		4.31E+01	e					4.31E+01
Tetrahydrofuran	109-99-9	0.45		4.18E-01	e					4.18E-01
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)										
1,2,4,5-Tetrachlorobenzene	95-94-3	4.64		2.58E+03						2.58E+03
1,3,5-Trinitrobenzene	99-35-4	1.18		1.94E+00						1.94E+00
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	4.17		1.00E+03						1.00E+03
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	-2.70		5.71E-04						5.71E-04
2-sec-Butyl-4,6-dinitrophenol	88-85-7	3.14		1.18E+02						1.18E+02
3,3'-Dimethoxybenzidine	119-90-4	1.81		7.27E+00						7.27E+00
3,3-Dichlorobenzidine	91-94-1	3.58		2.92E+02						2.92E+02
4-Bromophenylphenyl ether	101-55-3	5.00		5.10E+03						5.10E+03
Ammonium perfluorooctanoate	3825-26-1	No data		No data			1.00E+05		Default	1.00E+05
Azobenzene	103-33-3	3.82		4.86E+02						4.86E+02
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data			1.00E+05		Default	1.00E+05
Captan	133-06-2	2.35		2.25E+01	e					2.25E+01
Chlorobenzilate	510-15-6	4.38		1.53E+03						1.53E+03
Dibutylphosphate	107-66-4	No data		No data			1.00E+05		Default	1.00E+05
Dimethyl aminoazobenzene	60-11-7	4.58		2.29E+03	e					2.29E+03
Hexachlorobenzene	118-74-1	5.50	2.53E+02							2.53E+02
Hexachlorobutadiene	87-68-3	4.73	7.83E+02							7.83E+02

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Hexachlorocyclopentadiene	77-47-4	5.04	1.65E+02							1.65E+02
Hexachloroethane	67-72-1	3.98		6.83E+02	e					6.83E+02
Hexachlorophene	70-30-4	7.54		2.13E+03	e					2.13E+03
Hexamethylene-1,5-diisocyanate	822-06-0	1.27		2.36E+00	e					2.36E+00
Mirex	2385-85-5	6.89		8.09E+03	e					8.09E+03
Nitrofen	1836-75-5	5.53		1.17E+04	e					1.17E+04
Pentachlorobenzene	608-93-5	5.09	1.27E+04							1.27E+04
Pentachloronitrobenzene	82-68-8	4.64	2.14E+02							2.14E+02
Pentachlorophenol	87-86-5	5.08	1.09E+02							1.09E+02
Picric acid	88-89-1	2.03		1.15E+01	e					1.15E+01
Pronamide	23950-58-5	3.51		2.55E+02	e					2.55E+02
Strychnine	57-24-9	1.93		9.34E+00	e					9.34E+00
Terphenyls	26140-60-3	No data		No data			1.00E+05		Default	1.00E+05
Tributyl phosphate	126-73-8	4.00		7.05E+02	e					7.05E+02
Trifluralin	1582-09-8	5.34		9.00E+03	e					9.00E+03
Triphenylamine	603-34-9	No data		No data			1.00E+05		Default	1.00E+05
Herbicides and Organochlorinated Pesticides										
2,4,5-T	93-76-5	3.36		1.86E+02	e					1.86E+02
2,4-D and esters	94-75-7	2.81		5.90E+01	e					5.90E+01
4,4-DDD	72-54-8	6.20		1.69E+04	e					1.69E+04
4,4-DDE	72-55-9	6.26	2.55E+04							2.55E+04
4,4-DDT	50-29-3	6.00		1.69E+04	e					1.69E+04
Aldrin	309-00-2	6.18		1.70E+04	e		1.10E+04	f		1.70E+04
alpha-BHC	319-84-6	3.80		4.65E+02	e					4.65E+02
beta-BHC	319-85-7	3.83		4.99E+02	e					4.99E+02
Chlordane	57-74-9	5.94		1.66E+04	e		1.40E+06	f		1.66E+04
Delta-BHC	319-86-8	4.14		9.41E+02	e					9.41E+02
Dieldrin	60-57-1	5.27		8.07E+03	e		1.40E+04	f		8.07E+03
Endothall	145-73-3	-0.87		2.64E-02	e					2.64E-02

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Endrin	72-20-8	4.89		4.18E+03	e		2.60E+03	f		4.18E+03
gamma-BHC (Lindane)	58-89-9	3.72		3.95E+02	e		1.00E+03	f		3.95E+02
Heptachlor	76-44-8	5.02	5.52E+03				1.40E+04	f		5.52E+03
Isodrin	465-73-6	3.55		2.77E+02	e					2.77E+02
Methoxychlor	72-43-5	4.53		2.06E+03	e					2.06E+03
Silvex (2,4,5-TP)	93-72-1	4.07		8.19E+02	e					8.19E+02
Toxaphene	8001-35-2	5.50		1.13E+04	e					1.13E+04
Inorganic Chemicals and Compounds										
Metals										
Aluminum	7429-90-5	NA	2.70E+00				1.00E+01	f		2.70E+00
Antimony	7440-36-0	NA	4.00E+01				1.00E+00	f		4.00E+01
Arsenic	7440-38-2	NA	1.14E+02				2.80E+02	f		1.14E+02
Barium	7440-39-3	NA	6.33E+02		l		4.00E+00	f		6.33E+02
Beryllium	7440-41-7	NA	6.20E+01				2.00E+00	f		6.20E+01
Bismuth	7440-69-9	NA		6.33E+02	l					6.33E+02
Boron	7440-42-8	NA		6.33E+02	l					6.33E+02
Cadmium	7440-43-9	NA	9.07E+02				5.00E+01	f		9.07E+02
Calcium	7440-70-2	NA		6.33E+02	l		4.00E+01	k		6.33E+02
Chromium (and VI)	18540-29-9	NA	1.90E+01				2.00E+02	f		1.90E+01
Cobalt	7440-48-4	NA		6.33E+02	l		3.00E+02	f		6.33E+02
Copper	7440-50-8	NA	7.10E+02				2.10E+02	f		7.10E+02
Iron	7439-89-6	NA		6.33E+02	l		2.00E+03	k		6.33E+02
Lead	7439-92-1	NA	9.00E-02				3.00E+02	f		9.00E-02
Lithium	7439-93-2	NA		6.33E+02	l					6.33E+02
Magnesium	7439-95-4	NA		6.33E+02	l					6.33E+02
Manganese	7439-96-5	NA		6.33E+02	l		4.00E+02	f		6.33E+02
Mercury	7439-97-6	NA	3.53E+03				6.30E+04	f		3.53E+03
Molybdenum	7439-98-7	NA		6.33E+02	l					6.33E+02
Nickel	7440-02-0	NA	7.80E+01				1.00E+02	f		7.80E+01

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Potassium	7440-09-7	NA		6.33E+02	l		1.00E+03	k		6.33E+02
Rhodium	7440-16-6	NA		6.33E+02	l					6.33E+02
Selenium	7782-49-2	NA	1.29E+02				8.00E+00	f		1.29E+02
Silicon	7440-21-3	NA		6.33E+02	l					6.33E+02
Silver	7440-22-4	NA	8.77E+01				2.00E+00	f		8.77E+01
Sodium	7440-23-5	NA		6.33E+02	l		1.00E+02	k		6.33E+02
Strontium	7440-24-6	NA		6.33E+02	l					6.33E+02
Tantalum	7440-25-7	NA		6.33E+02	l					6.33E+02
Thallium	7440-28-0	NA	1.00E+04							1.00E+04
Tin	7440-31-5	NA		6.33E+02	l					6.33E+02
Tungsten	7440-33-7	NA		6.33E+02	l					6.33E+02
Uranium	7440-61-1	NA		6.33E+02	l					6.33E+02
Vanadium	7440-62-2	NA		6.33E+02	l		1.00E-02	f		6.33E+02
Yttrium	7440-65-5	NA		6.33E+02	l					6.33E+02
Zinc	7440-66-6	NA	2.06E+03				1.00E+03	f		2.06E+03
Zirconium	7440-67-7	NA		6.33E+02	l					6.33E+02
Non-metals and Anions										
Ammonia/Ammonium	7664-41-7	NA					5.00E+02		Default	5.00E+02
Bromide	24959-67-9	NA		6.33E+02	l					6.33E+02
Chloride	16887-00-6	NA		6.33E+02	l					6.33E+02
Cyanide	57-12-5	NA	6.33E+02		l		0.00E+00	f		0.00E+00
Fluoride	16984-48-8	NA		6.33E+02	l					6.33E+02
Hydroxide	14280-30-9	NA	NA						Depends on pH	NA
Iodine	7553-56-2	NA		6.33E+02	l					6.33E+02
Nitrate	14797-55-8	NA		6.33E+02	l					6.33E+02
Nitrite	14797-65-0	NA		6.33E+02	l					6.33E+02
Phosphate	14265-44-2	NA		6.33E+02	l					6.33E+02
Phosphorus	7723-14-0	NA		6.33E+02	l					6.33E+02
Sulfate	14808-79-8	NA		6.33E+02	l					6.33E+02

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Total Sulfur	63705-05-5	NA		6.33E+02	l					6.33E+02
Priority Pollutants										
Carbon Dioxide	124-38-9	NA					5.00E+02		Default	5.00E+02
Nitrogen Dioxide	10102-44-0	NA					5.00E+02		Default	5.00E+02
Ozone	10028-15-6	NA					5.00E+02		Default	5.00E+02
Particulate Matter	No CAS #	NA	NA							NA
Sulfur Dioxode	7446-09-5	NA					5.00E+02		Default	5.00E+02
Radionuclides										
Americium-241	1596-10-2	NA		6.33E+02	l		1.00E+02	k		6.33E+02
Antimony-125	14234-35-6	NA	4.00E+01				2.00E+02	k		4.00E+01
Barium-137	13981-97-0	NA		6.33E+02	l		2.00E+02	k		6.33E+02
Cadmium-113	None	NA	9.07E+02				2.00E+02	k		9.07E+02
Cesium-134	13967-70-9	NA		6.33E+02	l		2.00E+03	k		6.33E+02
Cesium-137	10045-97-3	NA		6.33E+02	l		2.00E+03	k		6.33E+02
Europium-154	15585-10-1	NA		6.33E+02	l		3.00E+02	k		6.33E+02
Europium-155	14391-16-3	NA		6.33E+02	l		3.00E+02	k		6.33E+02
Nickel-63	13981-37-8	NA	7.80E+01				1.00E+02	k		7.80E+01
Plutonium-239	15117-48-3	NA		6.33E+02	l		2.50E+02	k		6.33E+02
Plutonium-241	14119-32-5	NA		6.33E+02	l		2.50E+02	k		6.33E+02
Samarium-151	15715-94-3	NA		6.33E+02	l		3.00E+02	k		6.33E+02
Strontium-90	10098-97-2	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Technetium-99	14133-79-7	NA		6.33E+02	l		1.50E+01	k		6.33E+02
Tritium	10028-17-8	NA		6.33E+02	l		1.00E+00	k		6.33E+02
Yttrium-90	10098-91-6	NA		6.33E+02	l		2.50E+01	k		6.33E+02
Uranium-232	14158-29-3	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Uranium-233	13968-55-3	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Uranium-234	13966-29-5	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Uranium-235	15117-96-1	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Uranium-236	13982-70-2	NA		6.33E+02	l		5.00E+01	k		6.33E+02

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]
Uranium-238	7440-61-1	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Actinium-227	14952-40-0	NA		6.33E+02	l		3.30E+02	k		6.33E+02
Americium-243	14993-75-0	NA		6.33E+02	l		1.00E+02	k		6.33E+02
Carbon-14	14762-75-5	NA		6.33E+02	l		9.00E+03	k		6.33E+02
Cobalt-60	10198-40-0	NA		6.33E+02	l		3.30E+02	k		6.33E+02
Curium-242	15510-73-3	NA		6.33E+02	l		3.00E+01	k		6.33E+02
Curium-243	15757-87-6	NA		6.33E+02	l		3.00E+01	k		6.33E+02
Curium-244	13981-15-2	NA		6.33E+02	l		3.00E+01	k		6.33E+02
Europium-152	14683-23-9	NA		6.33E+02	l		3.00E+02	k		6.33E+02
Iodine-129	15046-84-1	NA		6.33E+02	l		5.00E+01	k		6.33E+02
Neptunium-237	13994-20-2	NA		6.33E+02	l		2.50E+03	k		6.33E+02
Nickel-59	14336-70-0	NA	7.80E+01				1.00E+02	k		7.80E+01
Niobium-93		NA		6.33E+02	l		1.00E+02	k		1.00E+02
Plutonium-238	13981-16-3	NA		6.33E+02	l		2.50E+02	k		2.50E+02
Plutonium-240	14119-33-6	NA		6.33E+02	l		2.50E+02	k		2.50E+02
Plutonium-242	13982-10-0	NA		6.33E+02	l		2.50E+02	k		2.50E+02
Protactinium-231	14331-85-2	NA		6.33E+02	l		3.00E+01	k		3.00E+01
Radium-226	13982-63-3	NA		6.33E+02	l		5.00E+01	k		5.00E+01
Radium-228	15262-20-1	NA		6.33E+02	l		5.00E+01	k		5.00E+01
Ruthenium-106	13967-48-1	NA		6.33E+02	l		1.00E+02	k		1.00E+02
Selenium-79	None	NA	1.29E+02				1.00E+03	k		1.29E+02
Thorium-229	15594-54-4	NA		6.33E+02	l		1.00E+02	k		1.00E+02
Thorium-232	7440-29-1	NA		6.33E+02	l		1.00E+02	k		1.00E+02
Tin-126	15832-50-5	NA		6.33E+02	l		1.00E+03	k		1.00E+03
Zirconium-93	15751-77-6	NA		6.33E+02	l		2.00E+02	k		2.00E+02

NA = Not applicable

[a] $\log_{10}$ of K_{ow} values in Table 4.1

[b] Published in Appendix C of EPA (1999), Table C-5

[c] Calculated or chosen as described in Appendix C, Sect. C-1.5 of EPA (1999)

Table C2-9. Aquatic Water-to-Fish Transfer Factors (BCF_{fish}) for Ecological Receptors (mg/kg tissue wet weight/mg/L)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BCF_{fish} [b]	BCF_{fish} Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BCF_{fish}	SAIC compiled BCF_{fish}	Notes	Comments	Recommended BCF_{fish} [d]

[d] Selection criteria described in Sect. 8.2.4.4

[c] Calculated by using log K_{ow}: log BCF = 0.91 x log K_{ow} - 1.975 x log(0.00000068 x K_{ow}+1)-0.786 (Bintein, Devillers, and Karcher 1993)

[f] HAZWRAP (1994), Table 4.4

[g] Calculated by using the BCF_{fish} for TCDD from Appendix C, Table C-5 of EPA (1999) and BEFs for other congeners

[h] Value for Aroclor 1254 in Appendix C of EPA (1999), Table C-5, was used for PCB mixtures

[i] Benzo(a)pyrene value from Appendix C of EPA (1999), Table C-5, was used as a surrogate value

[j] Nitrobenzene value from Appendix C of EPA (1999), Table C-5, was used as a surrogate value

[k] NRC (1992), Table 6.19

[l] Average of values for other inorganics as published in Appendix C of EPA (1999), Table C-5

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF [b]	BASF Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BASF	Kd [d]	BCF_{inv} [e]	SAIC computed BASF [f]	Comments	Preferred BASF [g]
Organic Compounds											
Aromatic Halogenated Hydrocarbons											
4-Chloro-3-methylphenol	59-50-7	3.10		2.47E+01	h		2.41E+01	2.47E+01	1.03E+00		1.03E+00
2,3,4,6-Tetrachlorophenol	58-90-2	4.42		2.98E+02	h		2.64E+02	2.98E+02	1.13E+00		1.13E+00
Aromatic Nonhalogenated Hydrocarbons											
2-Nitrotoluene	88-72-2	2.30		5.47E+00	h		1.71E+01	5.47E+00	3.20E-01		3.20E-01
4-Nitrobiphenyl	92-93-3	3.77		8.74E+01	h		No Kd	8.74E+01	1.00E+01	Default	1.00E+01
Benzaldehyde	100-52-7	1.48		1.16E+00	h		8.04E-01	1.16E+00	1.44E+00		1.44E+00
Benzene	71-43-2	-4.99		5.84E-06	h		4.65E+00	5.84E-06	1.25E-06		1.25E-06
Benzyl alcohol	100-51-6	1.10		5.69E-01	h		4.09E-01	5.69E-01	1.39E+00		1.39E+00
Ethyl benzene	100-41-4	3.12		2.58E+01	h		8.16E+00	2.58E+01	3.17E+00		3.17E+00
m-Xylene	108-38-3	3.20		2.99E+01	h		7.84E+00	2.99E+01	3.82E+00		3.82E+00
o-Xylene	95-47-6	3.13		2.62E+01	h		9.64E+00	2.62E+01	2.71E+00		2.71E+00
p-Xylene	106-42-3	3.17		2.82E+01	h		1.24E+01	2.82E+01	2.28E+00		2.28E+00
Styrene	100-42-5	2.93		1.79E+01	h		3.65E+01	1.79E+01	4.90E-01		4.90E-01
Toluene	108-88-3	2.67		1.09E+01	h		5.60E+00	1.09E+01	1.95E+00		1.95E+00
Non-aromatic Nonhalogenated Hydrocarbons											
1,2-Epoxybutane	106-88-7	1.44		1.08E+00	h		No Kd	1.08E+00	1.00E+01	Default	1.00E+01
1,3-Butadiene	106-99-0	1.90		2.57E+00	h		2.96E+00	2.57E+00	8.68E-01		8.68E-01
1,4-Dioxane	123-91-1	-0.27	4.31E-02		h		3.50E-02	4.31E-02	1.23E+00		1.23E+00
1-Methylpropyl alcohol	78-92-2	0.61		2.26E-01	h		1.60E-01	2.26E-01	1.41E+00		1.41E+00
1-Nitropropane	108-03-2	0.87		3.69E-01	h		No Kd	3.69E-01	1.00E+01	Default	1.00E+01
2,2,4-Trimethylpentane	540-84-1	5.02		9.23E+02	h		3.46E+03	9.23E+02	2.67E-01		2.67E-01
2-Butanone	78-93-3	0.28		1.21E-01	h		9.36E-02	1.21E-01	1.30E+00		1.30E+00
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2-Ethoxyethanol	110-80-5	-0.10		5.92E-02	h		8.36E-01	5.92E-02	7.08E-02		7.08E-02
2-Heptanone	110-43-0	1.98		2.99E+00	h		3.55E+00	2.99E+00	8.42E-01		8.42E-01
2-Hexanone	591-78-6	1.38		9.64E-01	h		5.36E+00	9.64E-01	1.80E-01		1.80E-01
2-Methoxyethanol	109-86-4	0.25		1.15E-01	h		No Kd	1.15E-01	1.00E+01	Default	1.00E+01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv}[e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
2-Methyl-2-propanol	75-65-0	0.35		1.38E-01	h		1.49E+00	1.38E-01	9.30E-02		9.30E-02
2-Methyl-2-propenenitrile	126-98-7	0.54		1.98E-01	h		1.49E-01	1.98E-01	1.33E+00		1.33E+00
2-Methylaziridine	75-55-8	-0.60		2.29E-02	h		No Kd	2.29E-02	1.00E+01	Default	1.00E+01
2-Methylpropyl alcohol	78-83-1	0.76		3.00E-01	h		2.24E-01	3.00E-01	1.33E+00		1.33E+00
2-Pentanone	107-87-9	0.91		3.97E-01	h		2.96E+00	3.97E-01	1.34E-01		1.34E-01
2-Propanone (Acetone)	67-64-1	-0.22	5.00E-02		h		3.80E-02	5.00E-02	1.32E+00		1.32E+00
2-Propene-1-ol	107-18-6	0.17		9.85E-02	h		5.90E-02	9.85E-02	1.67E+00		1.67E+00
2-Propyl alcohol	67-63-0	0.05		7.85E-02	h		4.50E-02	7.85E-02	1.74E+00		1.74E+00
3-Heptanone	106-35-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
3-Methyl-1-butanol	123-51-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
3-Methyl-2-butanone	563-80-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
3-Pentanone	96-22-0	0.99		4.62E-01	h		4.81E-01	4.62E-01	9.61E-01		9.61E-01
4-Heptanone	123-19-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
4-Methyl-2-pentanone	108-10-1	1.19		6.74E-01	h		4.80E-01	6.74E-01	1.40E+00		1.40E+00
4-Methyl-3-penten-2-one	141-79-7	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
5-Methyl-2-hexanone	110-12-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Acetaldehyde	75-07-0	-0.22		4.72E-02	h		3.81E-02	4.72E-02	1.24E+00		1.24E+00
Acetamide	60-35-5	-1.26		6.64E-03	h		1.13E-03	6.64E-03	5.89E+00		5.89E+00
Acetic acid	64-19-7	-0.17		5.19E-02	h		4.00E-02	5.19E-02	1.30E+00		1.30E+00
Acetic acid ethyl ester	141-78-6	0.73		2.83E-01	h		9.18E-02	2.83E-01	3.08E+00		3.08E+00
Acetic acid n-butyl ester	123-86-4	1.73		1.87E+00	h		2.02E+00	1.87E+00	9.25E-01		9.25E-01
Acetonitrile	75-05-8	-0.34		3.76E-02	h		3.07E-02	3.76E-02	1.23E+00		1.23E+00
Acrolein	107-02-8	-0.01		7.03E-02	h		5.57E-02	7.03E-02	1.26E+00		1.26E+00
Acrylonitrile	107-13-1	0.25	1.15E-01		h		8.88E-02	1.15E-01	1.29E+00		1.29E+00
Bis(isopropyl)ether	108-20-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Butane	106-97-8	2.89		1.66E+01	h		No Kd	1.66E+01	1.00E+01	Default	1.00E+01
Carbon disulfide	75-15-0	2.00		3.10E+00	h		2.06E+00	3.10E+00	1.51E+00		1.51E+00
Cyanogen	460-19-5	0.81		3.28E-01	h		No Kd	3.28E-01	1.00E+01	Default	1.00E+01
Cyclohexane	110-82-7	3.44		4.69E+01	h		1.91E+01	4.69E+01	2.45E+00		2.45E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF [b]	BASF Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BASF	Kd [d]	BCF_{inv} [e]	SAIC computed BASF [f]	Comments	Preferred BASF [g]
Cyclohexanone	108-94-1	0.81		3.29E-01	h		2.51E-01	3.29E-01	1.31E+00		1.31E+00
Cyclohexene	110-83-8	2.86		1.57E+01	h		2.60E+01	1.57E+01	6.04E-01		6.04E-01
Cyclopentane	287-92-3	3.00		2.05E+01	h		3.57E+01	2.05E+01	5.73E-01		5.73E-01
Ethyl alcohol	64-17-5	0.31		1.28E-01	h		8.11E-02	1.28E-01	1.58E+00		1.58E+00
Ethyl ether	60-29-7	0.89		3.83E-01	h		3.01E-01	3.83E-01	1.27E+00		1.27E+00
Ethyl methacrylate	97-63-2	1.59		1.43E+00	h		9.80E-01	1.43E+00	1.46E+00		1.46E+00
Formaldehyde	50-00-0	0.34	1.36E-01		h		1.05E-01	1.36E-01	1.30E+00		1.30E+00
Formamide	75-12-7	-1.51		4.14E-03	h		No Kd	4.14E-03	1.00E+01	Default	1.00E+01
Formic acid	64-18-6	-0.54		2.59E-02	h		2.16E-01	2.59E-02	1.20E-01		1.20E-01
Formic acid, methyl ester	107-31-3	-0.26		4.34E-02	h		No Kd	4.34E-02	1.00E+01	Default	1.00E+01
Glycidylaldehyde	765-34-4	-0.73		1.80E-02	h		No Kd	1.80E-02	1.00E+01	Default	1.00E+01
Methyl acetate	79-20-9	0.18		1.00E-01	h		1.92E-01	1.00E-01	5.23E-01		5.23E-01
Methyl alcohol	67-56-1	-0.71		1.87E-02	h		1.58E-02	1.87E-02	1.19E+00		1.19E+00
Methyl isocyanate	624-83-9	No data		No data			No Kd	NA	1.00E+01	Default	1.00E+01
Methyl methacrylate	80-62-6	0.79		3.17E-01	h		2.52E+00	3.17E-01	1.26E-01		1.26E-01
Methyl tert-butyl ether	1634-04-4	0.94		4.21E-01	h		3.37E-01	4.21E-01	1.25E+00		1.25E+00
Methylacetylene	74-99-7	0.94		4.21E-01	h		No Kd	4.21E-01	1.00E+01	Default	1.00E+01
Methylcyclohexane	108-87-2	4.10		1.63E+02	h		4.31E+02	1.63E+02	3.78E-01		3.78E-01
N,N-Dimethylacetamide	127-19-5	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
n-Butyl alcohol	71-36-3	0.88		3.76E-01	h		2.95E-01	3.76E-01	1.28E+00		1.28E+00
n-Heptane	142-82-5	4.66		4.68E+02	h		1.53E+03	4.68E+02	3.06E-01		3.06E-01
n-Hexane	110-54-3	4.11		1.66E+02	h		4.41E+02	1.66E+02	3.77E-01		3.77E-01
Nitromethane	75-52-5	-0.35		3.69E-02	h		No Kd	3.69E-02	1.00E+01	Default	1.00E+01
n-Nonane	111-84-2	5.65		3.03E+03	h		1.44E+04	3.03E+03	2.11E-01		2.11E-01
n-Octane	111-65-9	4.00		1.35E+02	h		3.44E+02	1.35E+02	3.93E-01		3.93E-01
n-Pentane	109-66-0	3.21		3.04E+01	h		5.75E+01	3.04E+01	5.29E-01		5.29E-01
n-Propionaldehyde	123-38-6	0.59		2.17E-01	h		1.53E-01	2.17E-01	1.42E+00		1.42E+00
n-Propyl alcohol	71-23-8	0.25		1.14E-01	h		No Kd	1.14E-01	1.00E+01	Default	1.00E+01
n-Valeraldehyde	110-62-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv}[e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Oxirane	75-21-8	-0.30		4.06E-02	h		3.30E-02	4.06E-02	1.23E+00		1.23E+00
p-Cymene	99-87-6	4.10		1.63E+02	h		No Kd	1.63E+02	1.00E+01	Default	1.00E+01
Phosgene	75-44-5	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Propargyl alcohol	107-19-7	0.26		1.17E-01	h		No Kd	1.17E-01	1.00E+01	Default	1.00E+01
Propionic acid	79-09-4	0.33		1.33E-01	h		8.48E-02	1.33E-01	1.57E+00		1.57E+00
Propionitrile	107-12-0	0.16		9.66E-02	h		5.77E-02	9.66E-02	1.67E+00		1.67E+00
Propylene gylcol monomethyl ether	107-98-2	-0.18		5.09E-02	h		No Kd	5.09E-02	1.00E+01	Default	1.00E+01
p-tert-Butyltoluene	98-51-1	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Triethylamine	121-44-8	0.16		9.66E-02	h		5.77E-02	9.66E-02	1.67E+00		1.67E+00
Trimethylamine	75-50-3	0.16		9.66E-02	h		1.60E-01	9.66E-02	6.04E-01		6.04E-01
Vinyl acetate	108-05-4	0.70		2.67E-01	h		1.99E-01	2.67E-01	1.34E+00		1.34E+00
Non-aromatic Halogenated Hydrocarbons											
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
1,1,1,2-Tetrachloroethane	630-20-6	2.63		1.02E+01	h		6.37E+00	1.02E+01	1.60E+00		1.60E+00
1,1,1-Trichloroethane	71-55-6	2.42		6.88E+00	h		5.40E+03	6.88E+00	1.27E-03		1.27E-03
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	3.73		8.11E+01	h		1.26E+01	8.11E+01	6.41E+00		6.41E+00
1,1,2,2-Tetrachloroethane	79-34-5	4.64		4.54E+02	h		3.16E+00	4.54E+02	1.44E+02		1.44E+02
1,1,2,2-Tetrachloroethene	127-18-4	2.55		8.68E+00	h		1.06E+01	8.68E+00	8.19E-01		8.19E-01
1,1,2-Trichloroethane	79-00-5	2.10		3.73E+00	h		3.00E+00	3.73E+00	1.24E+00		1.24E+00
1,1,2-Trichloroethylene	79-01-6	2.43		7.02E+00	h		3.76E+00	7.02E+00	1.87E+00		1.87E+00
1,1-Dichloroethane	75-34-3	1.79		2.10E+00	h		2.12E+00	2.10E+00	9.90E-01		9.90E-01
1,1-Dichloroethene	75-35-4	2.12		3.90E+00	h		2.60E+00	3.90E+00	1.50E+00		1.50E+00
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	3.16		2.77E+01	h		1.03E+01	2.77E+01	2.69E+00		2.69E+00
1,2,3-Trichloropropane	96-18-4	2.25		4.98E+00	h		3.22E+00	4.98E+00	1.55E+00		1.55E+00
1,2-Dibromo-3-chloropropane	96-12-8	2.34		5.90E+00	h		3.79E+00	5.90E+00	1.56E+00		1.56E+00
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	2.82		1.46E+01	h		No Kd	1.46E+01	1.00E+01	Default	1.00E+01
1,2-Dichloroethane	107-06-2	1.46		1.13E+00	h		7.83E-01	1.13E+00	1.44E+00		1.44E+00
1,2-Dichloroethylene	540-59-0	0.48		1.77E-01	h		No Kd	1.77E-01	1.00E+01	Default	1.00E+01
1,2-Dichloropropane	78-87-5	2.25		4.98E+00	h		1.88E+00	4.98E+00	2.65E+00		2.65E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF [b]	BASF Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BASF	Kd [d]	BCF_{inv} [e]	SAIC computed BASF [f]	Comments	Preferred BASF [g]
1,3-Dichloropropene	542-75-6	1.75		1.93E+00	h		1.08E+00	1.93E+00	1.79E+00		1.79E+00
1,4-Dichloro-2-butene	764-41-0	0.87		3.70E-01	h		No Kd	3.70E-01	1.00E+01	Default	1.00E+01
1-Chloroethene	75-01-4	1.15		6.20E-01	h		4.44E-01	6.20E-01	1.40E+00		1.40E+00
2,2-Dichloropropionic acid	75-99-0	0.78		3.10E-01	h		No Kd	3.10E-01	1.00E+01	Default	1.00E+01
2-Chloropropane	75-29-6	1.90		2.57E+00	h		2.96E+00	2.57E+00	8.68E-01		8.68E-01
3-Chloropropene (allyl chloride)	107-05-1	0.95		4.32E-01	h		No Kd	4.32E-01	1.00E+01	Default	1.00E+01
Bromochloromethane	74-97-5	1.41		1.02E+00	h		9.77E-01	1.02E+00	1.04E+00		1.04E+00
Bromodichloromethane	75-27-4	2.03		3.26E+00	h		2.15E+00	3.26E+00	1.51E+00		1.51E+00
Bromoethene	593-60-2	1.07		5.34E-01	h		No Kd	5.34E-01	1.00E+01	Default	1.00E+01
Bromoform	75-25-2	2.35		6.01E+00	h		5.04E+00	6.01E+00	1.19E+00		1.19E+00
Bromomethane	74-83-9	1.11		5.84E-01	h		3.60E-01	5.84E-01	1.62E+00		1.62E+00
Carbon tetrachloride	56-23-5	2.72	1.20E+01		h		6.08E+00	1.20E+01	1.97E+00		1.97E+00
Chlorodibromomethane	124-48-1	2.18		4.33E+00	h		2.82E+00	4.33E+00	1.53E+00		1.53E+00
Chlorodifluoromethane	75-45-6	1.08		5.47E-01	h		3.93E-01	5.47E-01	1.39E+00		1.39E+00
Chloroethane	75-00-3	3.10		2.47E+01	h		1.48E+01	2.47E+01	1.67E+00		1.67E+00
Chloroform	67-66-3	1.95	2.82E+00		h		2.12E+00	2.82E+00	1.33E+00		1.33E+00
Chloromethane	74-87-3	0.90		3.92E-01	h		2.40E-01	3.92E-01	1.63E+00		1.63E+00
Chloropentafluoroethane	76-15-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
cis-1,2-Dichloroethene	156-59-2	1.98		3.00E+00	h		1.99E+01	3.00E+00	1.51E-01		1.51E-01
cis-1,3-Dichloropropene	10061-01-5	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Cyanogen bromide	506-68-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Cyanogen chloride	506-77-4	0.20		1.04E-01	h		No Kd	1.04E-01	1.00E+01	Default	1.00E+01
Dichlorodifluoromethane	75-71-8	2.16		4.19E+00	h		2.74E+00	4.19E+00	1.53E+00		1.53E+00
Dichlorofluoromethane	75-43-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dichloromethane	75-09-2	1.26		7.62E-01	h		4.00E-01	7.62E-01	1.91E+00		1.91E+00
Difluorodibromomethane	75-61-6	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Hexafluoroacetone	684-16-2	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Iodomethane	74-88-4	1.69		1.73E+00	h		1.84E+00	1.73E+00	9.39E-01		9.39E-01
Methylene bromide	74-95-3	1.62		1.52E+00	h		1.04E+00	1.52E+00	1.46E+00		1.46E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Pentachloroethane	76-01-7	3.05		2.25E+01	h		4.00E+01	2.25E+01	5.62E-01		5.62E-01
trans-1,2-Dichloroethene	156-60-5	1.98		3.00E+00	h		1.52E+00	3.00E+00	1.98E+00		1.98E+00
trans-1,3-Dichloropropene	10061-02-6	2.06		3.48E+00	h		No Kd	3.48E+00	1.00E+01	Default	1.00E+01
Trichloroacetic acid	76-03-9	1.33		8.78E-01	h		8.16E-01	8.78E-01	1.08E+00		1.08E+00
Trichlorofluoroethane	27154-33-2	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Trichlorofluoromethane	75-69-4	2.53		8.46E+00	h		5.34E+00	8.46E+00	1.58E+00		1.58E+00
Trifluorobromomethane	75-63-8	1.86		2.38E+00	h		No Kd	2.38E+00	1.00E+01	Default	1.00E+01
Dioxin and Furan Compounds											
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	8.20	9.94E+01		i		3.91E+06	7.96E+01	2.04E-05		2.04E-05
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	7.92	2.16E+02		i		2.05E+06	1.72E+01	8.39E-06		8.39E-06
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	7.92	7.64E+03		i		2.05E+06	6.08E+02	2.97E-04		2.97E-04
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	7.79	6.08E+03		i		1.52E+06	4.84E+02	3.18E-04		3.18E-04
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	7.25	1.49E+03		i		4.39E+05	1.19E+02	2.70E-04		2.70E-04
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	7.25	2.35E+03		i		4.39E+05	1.87E+02	4.26E-04		4.26E-04
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	7.25	3.72E+03		i		4.39E+05	2.96E+02	6.75E-04		6.75E-04
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	7.25	2.74E+03		i		4.39E+05	2.18E+02	4.97E-04		4.97E-04
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	7.25	1.23E+04		i		4.39E+05	9.83E+02	2.24E-03		2.24E-03
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	6.64	1.80E+04		i		1.08E+05	1.44E+03	1.33E-02		1.33E-02
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6.79	4.31E+03		i		1.52E+05	3.43E+02	2.26E-03		2.26E-03
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	7.25	1.31E+04		i		4.39E+05	1.05E+03	2.38E-03		2.38E-03
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	6.92	3.14E+04		i		2.05E+05	2.50E+03	1.22E-02		1.22E-02
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	6.64	1.96E+04		h		1.08E+05	1.56E+03	1.44E-02		1.44E-02
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	6.53	2.64E+03		i		8.36E+04	1.25E+03	1.49E-02		1.49E-02
Dibenzofuran	132-64-9	4.33		2.51E+02	h		7.25E+02	2.51E+02	3.47E-01		3.47E-01
Octachlorodibenzo(p)dioxin	3268-87-9	8.20	2.35E+01		i		8.95E+01	1.87E+01	2.09E-01		2.09E-01
Octachlorodibenzofuran	39001-02-0	8.78	3.14E+02		i		1.49E+07	2.50E+01	1.68E-06		1.68E-06
PCBs											
Polychlorinated biphenyls (PCBs)[j]	1336-36-3	7.31	5.30E-01				1.24E+04	5.54E+03	4.48E-01		4.48E-01
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	7.08		4.49E+04	h		No Kd	4.49E+04	1.00E+01	Default	1.00E+01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{lav}[e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	7.12		4.84E+04	h		No Kd	4.84E+04	1.00E+01	Default	1.00E+01
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	7.12		4.84E+04	h		No Kd	4.84E+04	1.00E+01	Default	1.00E+01
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	7.41		8.34E+04	h		No Kd	8.34E+04	1.00E+01	Default	1.00E+01
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Phthalates											
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	5.20	1.31E+03		h		4.44E+03	3.18E+02	7.16E-02		7.16E-02
Butylbenzyl phthalate	85-68-7	4.41		2.94E+02	h		5.50E+02	2.94E+02	5.35E-01		5.35E-01
Dibutyl phthalate	84-74-2	4.72		5.25E+02	h		6.27E+01	5.25E+02	8.37E+00		8.37E+00
Diethyl phthalate	84-66-2	4.44		3.07E+02	h		3.28E+00	3.07E+02	9.36E+01		9.36E+01
Dimethylphthalate	131-11-3	1.63		1.56E+00	h		1.06E+01	1.56E+00	1.47E-01		1.47E-01
n-Dioctyl phthalate	117-84-0	9.33	3.13E+06		h		3.61E+07	5.95E+03	1.65E-04		1.65E-04
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)											
2-Chloronapthalene	91-58-7	4.07		1.53E+02	h		2.86E+02	1.53E+02	5.36E-01		5.36E-01
2-Methyl naphthalene	91-57-6	3.86		1.04E+02	h		2.50E+02	1.04E+02	4.14E-01		4.14E-01
5-Nitroacenaphthene	602-87-9	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Acenaphthene	83-32-9	3.96		1.26E+02	h		1.96E+02	1.26E+02	6.44E-01		6.44E-01
Acenaphthylene	208-96-8	4.07		1.54E+02	h		2.70E+02	1.54E+02	5.69E-01		5.69E-01
Anthracene	120-12-7	4.47		3.27E+02	h		9.40E+02	3.27E+02	3.48E-01		3.48E-01
Fluorene	86-73-7	4.18		1.89E+02	h		5.65E+02	1.89E+02	3.35E-01		3.35E-01
Indene	95-13-6	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Naphthalene	91-20-3	3.37		4.13E+01	h		4.76E+01	4.13E+01	8.69E-01		8.69E-01
Phenanthrene	85-01-8	4.55		3.81E+02	h		2.01E+03	3.81E+02	1.89E-01		1.89E-01
Pyrene	129-00-0	5.00		8.89E+02	h		2.72E+03	8.89E+02	3.27E-01		3.27E-01
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)											
3-Methylcholanthrene	56-49-5	7.11		4.75E+04	h		6.05E+04	4.75E+04	7.85E-01		7.85E-01
5-Methylchrysene	3697-24-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Benzo(a)anthracene	56-55-3	5.68	1.45E+00		k		1.04E+04	1.23E+04	1.18E+00		1.18E+00
Benzo(a)pyrene	50-32-8	6.13	1.59E+00				3.87E+04	4.70E+03	1.21E-01		1.21E-01
Benzo(b)fluoranthene	205-99-2	6.20	1.61E+00		k		3.34E+04	4.70E+03	1.41E-01		1.41E-01
Benzo(e)pyrene	192-97-2	7.40		8.21E+04	h		6.34E+05	8.21E+04	1.30E-01		1.30E-01
Benzo(g,h,i)perylene	191-24-2	7.10		4.67E+04	h		7.28E+04	4.67E+04	6.41E-01		6.41E-01
Benzo(j)fluoranthene	205-82-3	6.44		1.34E+04	h		8.60E+04	1.34E+04	1.56E-01		1.56E-01
Benzo(k)fluoranthene	207-08-9	6.20	1.61E+00	1.61E+00	k		3.33E+04	1.32E+04	3.97E-01		3.97E-01
Benzo[a,i]pyrene	191-30-0	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Chrysene	218-01-9	5.74	1.38E+00				1.19E+04	9.80E+02	8.24E-02		8.24E-02
Dibenz(a,h)anthracene	53-70-3	6.55	1.61E+00		k		7.16E+04	7.10E+02	9.92E-03		9.92E-03
Dibenz[a,h]acridine	226-36-8	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dibenz[a,j]acridine	224-42-0	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dibenzo(a,h)fluoranthene	no cas #	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dibenzo[a,e]pyrene	192-65-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dibenzo[a,h]pyrene	189-64-0	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dibenzo[a,i]pyrene	189-55-9	7.29		6.68E+04	h		No Kd	6.68E+04	1.00E+01	Default	1.00E+01
Fluoranthene	206-44-0	5.08		1.04E+03	h		1.96E+03	1.04E+03	5.30E-01		5.30E-01
Hexachloronaphthalene	1335-87-1	7.59		1.18E+05	h		No Kd	1.18E+05	1.00E+01	Default	1.00E+01
Indeno(1,2,3-cd)pyrene	193-39-5	6.91	1.61E+00		k		1.64E+05	4.70E+03	2.86E-02		1.61E+00
Octachloronaphthalene	2234-13-1	6.42		1.29E+04	h		No Kd	1.29E+04	1.00E+01	Default	1.00E+01
Pentachloronaphthalene	1321-64-8	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Tetrachloronaphthalene	1335-88-2	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv}[e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Trichloronaphthalene	1321-65-9	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Light Substituted Benzene Compounds (MW <200 g/mole)											
1,2,3-Trichlorobenzene	87-61-6	4.05		1.47E+02	h		8.10E+02	1.47E+02	1.81E-01		1.81E-01
1,2,4-Trichlorobenzene	120-82-1	3.99		1.32E+02	h		6.64E+01	1.32E+02	1.99E+00		1.99E+00
1,2,4-Trimethyl benzene	95-63-6	3.65		6.97E+01	h		1.56E+02	6.97E+01	4.48E-01		4.48E-01
1,2-Dichlorobenzene	95-50-1	3.45		4.74E+01	h		1.52E+01	4.74E+01	3.12E+00		3.12E+00
1,3,5-Trimethyl benzene	108-67-8	3.42		4.52E+01	h		6.69E+01	4.52E+01	6.75E-01		6.75E-01
1,3-Dichlorobenzene	541-73-1	3.53		5.56E+01	h		3.21E+02	5.56E+01	1.73E-01		1.73E-01
1,3-Dinitrobenzene	99-65-0	1.49	1.19E+00		h		8.25E-01	1.30E+01	1.58E+01		1.58E+01
1,4-Dichlorobenzene	106-46-7	3.41		4.45E+01	h		2.46E+01	4.45E+01	1.81E+00		1.81E+00
1,4-Dinitrobenzene	100-25-4	1.50		1.21E+00	h		No Kd	1.21E+00	1.00E+01	Default	1.00E+01
2,4,5-Trichlorophenol	95-95-4	3.87		1.06E+02	h		4.51E+01	1.06E+02	2.34E+00		2.34E+00
2,4,6-Trichlorophenol	88-06-2	3.71		7.83E+01	h		9.05E+00	7.83E+01	8.66E+00		8.66E+00
2,4-Dichlorophenol	120-83-2	3.04		2.20E+01	h		5.58E+00	2.20E+01	3.94E+00		3.94E+00
2,4-Dimethylphenol	105-67-9	2.36		6.12E+00	h		5.04E+00	6.12E+00	1.21E+00		1.21E+00
2,4-Dinitrophenol	51-28-5	1.52		1.25E+00	h		4.00E-04	1.25E+00	3.13E+03		3.13E+03
2,4-Dinitrotoluene	121-14-2	2.00	5.80E+01				2.04E+00	1.30E+01	6.37E+00		5.80E+01
2,6-Dinitrotoluene	606-20-2	1.89	2.51E+00		h		1.68E+00	1.30E+01	7.74E+00		7.74E+00
2-Chlorophenol	95-57-8	2.16		4.21E+00	h		1.55E+01	4.21E+00	2.72E-01		2.72E-01
2-Chlorotoluene	95-49-8	3.54		5.63E+01	h		No Kd	5.63E+01	1.00E+01	Default	1.00E+01
2-Nitrophenol	88-75-5	1.79		2.09E+00	h		1.41E+01	2.09E+00	1.48E-01		1.48E-01
4,6-Dinitro-o-cresol	534-52-1	2.85		1.54E+01	h		No Kd	1.54E+01	1.00E+01	Default	1.00E+01
4-Chlorotoluene	106-43-4	3.33		3.81E+01	h		No Kd	3.81E+01	1.00E+01	Default	1.00E+01
4-Nitrophenol	100-02-7	1.91		2.62E+00	h		1.75E+01	2.62E+00	1.50E-01		1.50E-01
alpha-Methylstyrene	98-83-9	3.46		4.90E+01	h		No Kd	4.90E+01	1.00E+01	Default	1.00E+01
Aniline	62-53-3	0.98		4.54E-01	h		3.29E-01	4.54E-01	1.38E+00		1.38E+00
Benzotrichloride	98-07-7	2.92		1.76E+01	h		No Kd	1.76E+01	1.00E+01	Default	1.00E+01
Benzyl chloride	100-44-7	0.36		1.41E-01	h		1.08E-01	1.41E-01	1.31E+00		1.31E+00
Bromobenzene	108-86-1	2.99		2.01E+01	h		1.79E+01	2.01E+01	1.12E+00		1.12E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF [b]	BASF Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BASF	Kd [d]	BCF_{inv} [e]	SAIC computed BASF [f]	Comments	Preferred BASF [g]
Chlorobenzene	108-90-7	2.79		1.38E+01	h		8.96E+00	1.38E+01	1.54E+00		1.54E+00
Cumene	98-82-8	3.61		6.50E+01	h		3.72E+02	6.50E+01	1.75E-01		1.75E-01
m-Cresol	108-39-4	1.96		2.87E+00	h		1.91E+00	2.87E+00	1.50E+00		1.50E+00
n-Butyl benzene	104-51-8	4.28		2.29E+02	h		1.00E+02	2.29E+02	2.28E+00		2.28E+00
Nitrobenzene	98-95-3	1.83	2.26E+00		h		4.76E+04	1.30E+01	2.73E-04		2.73E-04
n-Propyl benzene	103-65-1	3.69		7.52E+01	h		2.90E+01	7.52E+01	2.59E+00		2.59E+00
o-Cresol	95-48-7	2.02		3.23E+00	h		2.14E+00	3.23E+00	1.51E+00		1.51E+00
o-Dinitrobenzene	528-29-0	1.60		1.46E+00	h		No Kd	1.46E+00	1.00E+01	Default	1.00E+01
o-Nitroaniline	88-74-4	1.85		2.34E+00	h		1.57E+01	2.34E+00	1.49E-01		1.49E-01
o-Toluidine	95-53-4	1.34		8.95E-01	h		6.28E-01	8.95E-01	1.43E+00		1.43E+00
p-Chloroaniline	106-47-8	1.87		2.43E+00	h		1.63E+00	2.43E+00	1.49E+00		1.49E+00
p-Cresol	106-44-5	1.94		2.77E+00	h		1.84E+00	2.77E+00	1.51E+00		1.51E+00
Phenol	108-95-2	1.48		1.16E+00	h		8.79E-01	1.16E+00	1.32E+00		1.32E+00
p-Nitrochlorobenzene	100-00-5	2.39		6.48E+00	h		No Kd	6.48E+00	1.00E+01	Default	1.00E+01
p-Toluidine	106-49-0	1.40		1.00E+00	h		9.56E-01	1.00E+00	1.05E+00		1.05E+00
sec-Butyl benzene	135-98-8	4.57		3.95E+02	h		No Kd	3.95E+02	1.00E+01	Default	1.00E+01
tert-Butyl benzene	98-06-6	4.11		1.66E+02	h		4.41E+02	1.66E+02	3.77E-01		3.77E-01
Toluene-2,6-diamine	823-40-5	1.45		1.11E+00	h		No Kd	1.11E+00	1.00E+01	Default	1.00E+01
Trimethyl benzene	25551-13-7	3.40		4.35E+01	h		No Kd	4.35E+01	1.00E+01	Default	1.00E+01
Other Light Semivolatile Compounds (molecular weight <200 g/mole)											
1,1'-Biphenyl	92-52-4	3.90		1.12E+02	h		1.00E+02	1.12E+02	1.11E+00		1.11E+00
1,1-Dimethylhydrazine	57-14-7	0.60		2.20E-01	h		No Kd	2.20E-01	1.00E+01	Default	1.00E+01
1,2-Dimethylhydrazine	540-73-8	-1.37		5.42E-03	h		No Kd	5.42E-03	1.00E+01	Default	1.00E+01
1,2-Diphenylhydrazine	122-66-7	2.94		1.83E+01	h		1.11E+01	1.83E+01	1.65E+00		1.65E+00
1,3-Propane sultone	1120-71-4	-0.52		2.66E-02	h		No Kd	2.66E-02	1.00E+01	Default	1.00E+01
2,4-Toluene diisocyante	584-84-9	No data		No data			No Kd	NA	1.00E+01	Default	1.00E+01
2-Chloroacetophenone	532-27-4	2.59		9.45E+00	h		No Kd	9.53E+00	1.00E+01	Default	1.00E+01
2-Propenoic acid	79-10-7	0.33		1.33E-01	h		8.48E-02	1.33E-01	1.57E+00		1.57E+00
4,4-Methylenedianiline	101-77-9	3.38		4.19E+01	h		No Kd	4.19E+01	1.00E+01	Default	1.00E+01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv}[e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Acetophenone	98-86-2	1.64		1.58E+00	h		1.08E+00	1.58E+00	1.46E+00		1.46E+00
Benzoic acid	65-85-0	1.86		2.38E+00	h		2.20E-02	2.38E+00	1.08E+02		1.08E+02
bis(2-Chloroethoxy)methane	111-91-1	7.59		1.18E+05	h		9.60E+05	1.18E+05	1.22E-01		1.22E-01
bis(2-Chloroethyl) ether	111-44-4	1.30		8.31E-01	h		3.04E+00	8.31E-01	2.73E-01		2.73E-01
Chlorocyclopentadiene	41851-50-7	2.43		6.99E+00	h		No Kd	6.99E+00	1.00E+01	Default	1.00E+01
Cyclohexanol	108-93-0	1.23		7.27E-01	h		5.20E-01	7.27E-01	1.40E+00		1.40E+00
Dichloroisopropyl ether	108-60-1	2.58		9.27E+00	h		2.44E+00	9.27E+00	3.80E+00		3.80E+00
Dichloromethyl ether	542-88-1	-0.38		3.49E-02	h		3.18E+00	3.49E-02	1.10E-02		1.10E-02
Dichloropentadiene	no cas #	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dimethyl sulfate	77-78-1	0.32		1.30E-01	h		No Kd	1.30E-01	1.00E+01	Default	1.00E+01
Dimethylaniline	121-69-7	-0.88		1.36E-02	h		No Kd	1.36E-02	1.00E+01	Default	1.00E+01
Di-n-propylnitrosamine	621-64-7	1.38		9.65E-01	h		6.80E-01	9.65E-01	1.42E+00		1.42E+00
Diphenyl ether	101-84-8	4.21		2.00E+02	h		5.53E+02	2.00E+02	3.63E-01		3.63E-01
Epichlorohydrin	106-89-8	0.25		1.15E-01	h		8.88E-02	1.15E-01	1.29E+00		1.29E+00
Ethyl carbamate (urethane)	51-79-6	-0.15		5.38E-02	h		No Kd	5.38E-02	1.00E+01	Default	1.00E+01
Ethyl methanesulfonate	62-50-0	0.05		7.84E-02	h		6.19E-02	7.84E-02	1.27E+00		1.27E+00
Ethylene dibromide	106-93-4	1.75		1.94E+00	h		1.31E+00	1.94E+00	1.48E+00		1.48E+00
Ethylene glycol	107-21-1	-0.91		1.27E-02	h		No Kd	1.27E-02	1.00E+01	Default	1.00E+01
Ethylene glycol monobutyl ether	111-76-2	1.55		1.34E+00	h		No Kd	1.34E+00	1.00E+01	Default	1.00E+01
Ethylene glycol monoethyl ether acetate	111-15-9	0.62		2.30E-01	h		No Kd	2.30E-01	1.00E+01	Default	1.00E+01
Ethylene thiourea	96-45-7	-0.64		2.13E-02	h		No Kd	2.13E-02	1.00E+01	Default	1.00E+01
Furfural	98-01-1	0.96		4.37E-01	h		3.53E-01	4.37E-01	1.24E+00		1.24E+00
Maleic hydrazide	123-33-1	-0.74		1.77E-02	h		No Kd	1.77E-02	1.00E+01	Default	1.00E+01
Malononitrile	109-77-3	0.04		7.70E-02	h		No Kd	7.70E-02	1.00E+01	Default	1.00E+01
Methyl styrene (mixed isomers)	25013-15-4	3.35		3.96E+01	h		No Kd	3.96E+01	1.00E+01	Default	1.00E+01
Methylhydrazine	60-34-4	-1.06		9.68E-03	h		No Kd	9.68E-03	1.00E+01	Default	1.00E+01
N,N-Diphenylamine	122-39-4	3.50		5.25E+01	h		1.39E+01	5.25E+01	3.79E+00		3.79E+00
Nitric acid, propyl ester	627-13-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
N-Nitrosodi-n-butylamine	924-16-3	2.41		6.73E+00	h		4.29E+00	6.73E+00	1.57E+00		1.57E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
N-Nitrosomorpholine	59-89-2	0.98		4.54E-01	h		No Kd	4.54E-01	1.00E+01	Default	1.00E+01
N-Nitroso-N,N-dimethylamine	62-75-9	-0.47		2.94E-02	h		No Kd	2.94E-02	1.00E+01	Default	1.00E+01
o-Anisidine	90-04-0	1.18		6.61E-01	h		No Kd	6.61E-01	1.00E+01	Default	1.00E+01
Oxalic acid	144-62-7	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Phthalic anhydride	85-44-9	-0.60		2.30E-02	h		1.92E-02	2.30E-02	1.20E+00		1.20E+00
p-Phthalic acid	100-21-0	0.82		3.37E-01	h		No Kd	3.37E-01	1.00E+01	Default	1.00E+01
Pyridine	110-86-1	0.67		2.53E-01	h		1.89E-01	2.53E-01	1.34E+00		1.34E+00
Quinoline	91-22-5	2.03		3.29E+00	h		No Kd	3.29E+00	1.00E+01	Default	1.00E+01
Quinone	106-51-4	0.20		1.04E-01	h		No Kd	1.04E-01	1.00E+01	Default	1.00E+01
Safrole	94-59-7	2.66		1.08E+01	h		6.73E+00	1.08E+01	1.60E+00		1.60E+00
Tetrahydrofuran	109-99-9	0.45		1.66E-01	h		1.26E-01	1.66E-01	1.32E+00		1.32E+00
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)											
1,2,4,5-Tetrachlorobenzene	95-94-3	4.64		4.51E+02	h		2.36E+02	4.51E+02	1.91E+00		1.91E+00
1,3,5-Trinitrobenzene	99-35-4	1.18		6.60E-01	h		4.72E-01	6.60E-01	1.40E+00		1.40E+00
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	4.17		1.86E+02	h		No Kd	1.86E+02	1.00E+01	Default	1.00E+01
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	-2.70		4.39E-04	h		No Kd	4.39E-04	1.00E+01	Default	1.00E+01
2-sec-Butyl-4,6-dinitrophenol	88-85-7	3.14		2.66E+01	h		No Kd	2.66E+01	1.00E+01	Default	1.00E+01
3,3'-Dimethoxybenzidine	119-90-4	1.81		2.17E+00	h		1.46E+00	2.17E+00	1.49E+00		1.49E+00
3,3-Dichlorobenzidine	91-94-1	3.58		6.05E+01	h		3.48E+01	6.05E+01	1.74E+00		1.74E+00
4-Bromophenylphenyl ether	101-55-3	5.00		8.89E+02	h		No Kd	8.89E+02	1.00E+01	Default	1.00E+01
Ammonium perfluorooctanoate	3825-26-1	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Azobenzene	103-33-3	3.82		9.61E+01	h		No Kd	9.61E+01	1.00E+01	Default	1.00E+01
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Captan	133-06-2	2.35		6.01E+00	h		7.98E+00	6.01E+00	7.53E-01		7.53E-01
Chlorobenzilate	510-15-6	4.38		2.76E+02	h		1.48E+02	2.76E+02	1.87E+00		1.87E+00
Dibutylphosphate	107-66-4	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Dimethyl aminoazobenzene	60-11-7	4.58		4.03E+02	h		No Kd	4.03E+02	1.00E+01	Default	1.00E+01
Hexachlorobenzene	118-74-1	5.50	2.29E+03		h		3.20E+03	2.60E+03	8.11E-01		8.11E-01
Hexachlorobutadiene	87-68-3	4.73	4.40E-01				2.77E+02	1.05E+01	3.79E-02		4.40E-01

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF [b]	BASF Calculated by EPA (1999) Methods [c]	Notes	Ecology Guidance BASF	Kd [d]	BCF_{Inv} [e]	SAIC computed BASF [f]	Comments	Preferred BASF [g]
Hexachlorocyclopentadiene	77-47-4	5.04	7.46E+02		h		3.80E+02	1.23E+03	3.24E+00		3.24E+00
Hexachloroethane	67-72-1	3.98		1.31E+02	h		7.27E+01	1.31E+02	1.80E+00		1.80E+00
Hexachlorophene	70-30-4	7.54		1.07E+05	h		4.31E+04	1.07E+05	2.48E+00		2.48E+00
Hexamethylene-1,5-diisocyanate	822-06-0	1.27		7.89E-01	h		No Kd	7.89E-01	1.00E+01	Default	1.00E+01
Mirex	2385-85-5	6.89		3.14E+04	h		4.00E+04	3.14E+04	7.85E-01		7.85E-01
Nitrofen	1836-75-5	5.53		2.42E+03	h		No Kd	2.42E+03	1.00E+01	Default	1.00E+01
Pentachlorobenzene	608-93-5	5.09	3.20E-01				1.29E+03	2.60E+03	2.01E+00		3.20E-01
Pentachloronitrobenzene	82-68-8	4.64	4.51E+02		h		2.36E+02	#REF!	FALSE		5.51E-02
Pentachlorophenol	87-86-5	5.08	1.03E+03		h		7.97E+02	5.20E+01	6.53E-02		6.53E-02
Picric acid	88-89-1	2.03		3.29E+00	h		No Kd	3.29E+00	1.00E+01	Default	1.00E+01
Pronamide	23950-58-5	3.51		5.36E+01	h		3.10E+01	5.36E+01	1.73E+00		1.73E+00
Strychnine	57-24-9	1.93		2.72E+00	h		1.81E+00	2.72E+00	1.50E+00		1.50E+00
Terphenyls	26140-60-3	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Tributyl phosphate	126-73-8	4.00		1.35E+02	h		No Kd	1.35E+02	1.00E+01	Default	1.00E+01
Trifluralin	1582-09-8	5.34		1.69E+03	h		2.41E+02	1.69E+03	7.00E+00		7.00E+00
Triphenylamine	603-34-9	No data		No data			No Kd	1.00E+05	1.00E+01	Default	1.00E+01
Herbicides and Organochlorinated Pesticides											
2,4,5-T	93-76-5	3.36		4.03E+01	h		2.10E+00	4.03E+01	1.92E+01		1.92E+01
2,4-D and esters	94-75-7	2.81		1.43E+01	h		7.98E-01	1.43E+01	1.79E+01		1.79E+01
4,4-DDD	72-54-8	6.20		8.55E+03	h		4.00E+03	8.55E+03	2.14E+00		2.14E+00
4,4-DDE	72-55-9	6.26	9.50E-01				3.46E+03	1.19E+04	3.45E+00		9.50E-01
4,4-DDT	50-29-3	6.00		5.86E+03	h		9.60E+03	5.86E+03	6.11E-01		6.11E-01
Aldrin	309-00-2	6.18		8.21E+03	h		1.95E+03	8.21E+03	4.21E+00		4.21E+00
alpha-BHC	319-84-6	3.80		9.24E+01	h		7.05E+01	9.24E+01	1.31E+00		1.31E+00
beta-BHC	319-85-7	3.83		9.85E+01	h		8.56E+01	9.85E+01	1.15E+00		1.15E+00
Chlordane	57-74-9	5.94		5.21E+03	h		2.05E+03	5.21E+03	2.54E+00		2.54E+00
Delta-BHC	319-86-8	4.14		1.76E+02	h		2.64E+01	1.76E+02	6.65E+00		6.65E+00
Dieldrin	60-57-1	5.27		1.48E+03	h		1.02E+03	1.48E+03	1.45E+00		1.45E+00
Endothall	145-73-3	-0.87		1.39E-02	h		5.61E-03	1.39E-02	2.47E+00		2.47E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Endrin	72-20-8	4.89		7.25E+02	h		4.32E+02	7.25E+02	1.68E+00		1.68E+00
gamma-BHC (Lindane)	58-89-9	3.72		7.96E+01	h		4.29E+01	7.96E+01	1.86E+00		1.86E+00
Heptachlor	76-44-8	5.02	1.67E+00				3.81E+02	3.81E+03	9.99E+00		1.67E+00
Isodrin	465-73-6	3.55		5.77E+01	h		No Kd	5.77E+01	1.00E+01	Default	1.00E+01
Methoxychlor	72-43-5	4.53		3.64E+02	h		3.20E+03	3.64E+02	1.14E-01		1.14E-01
Silvex (2,4,5-TP)	93-72-1	4.07		1.55E+02	h		No Kd	1.55E+02	1.00E+01	Default	1.00E+01
Toxaphene	8001-35-2	5.50		2.28E+03	h		4.00E+03	2.28E+03	5.71E-01		5.71E-01
Inorganic Chemicals and Compounds											
Metals											
Aluminum	7429-90-5	NA	9.00E-01		l		1.50E+03	4.07E+03	2.71E+00		2.71E+00
Antimony	7440-36-0	NA	9.00E-01		l		4.50E+01	7.00E+00	1.56E-01		1.56E-01
Arsenic	7440-38-2	NA	9.00E-01		l		2.50E+01	7.30E+01	2.92E+00		2.92E+00
Barium	7440-39-3	NA	9.00E-01		l		1.10E+01	2.00E+02	1.82E+01		1.82E+01
Beryllium	7440-41-7	NA	9.00E-01		l		2.30E+01	4.50E+01	1.96E+00		1.96E+00
Bismuth	7440-69-9	NA		9.00E-01	l		2.00E+02	4.07E+03	2.03E+01		2.03E+01
Boron	7440-42-8	NA		9.00E-01	l		3.00E+00	4.07E+03	1.36E+03		1.36E+03
Cadmium	7440-43-9	NA	3.40E+00				1.50E+01	3.46E+03	2.31E+02		2.31E+02
Calcium	7440-70-2	NA		9.00E-01	l		4.00E+00	4.07E+03	1.02E+03		1.02E+03
Chromium (and VI)	18540-29-9	NA	3.90E-01				1.20E+03	3.00E+03	2.50E+00		2.50E+00
Cobalt	7440-48-4	NA		9.00E-01	l		4.50E+01	4.07E+03	9.04E+01		9.04E+01
Copper	7440-50-8	NA	3.00E-01				3.50E+01	3.72E+03	1.06E+02		1.06E+02
Iron	7439-89-6	NA		9.00E-01	l		2.50E+01	4.07E+03	1.63E+02		1.63E+02
Lead	7439-92-1	NA	6.30E-01				9.00E+02	5.06E+03	5.62E+00		5.62E+00
Lithium	7439-93-2	NA		9.00E-01	l		3.00E+02	4.07E+03	1.36E+01		1.36E+01
Magnesium	7439-95-4	NA		9.00E-01	l		4.50E+00	4.07E+03	9.04E+02		9.04E+02
Manganese	7439-96-5	NA		9.00E-01	l		6.50E+01	4.07E+03	6.26E+01		6.26E+01
Mercury	7439-97-6	NA	6.80E-02				1.00E+03	2.02E+04	2.02E+01		2.02E+01
Molybdenum	7439-98-7	NA		9.00E-01	l		2.00E+01	4.07E+03	2.03E+02		2.03E+02
Nickel	7440-02-0	NA	9.00E-01		l		1.60E+01	2.80E+01	1.75E+00		1.75E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow}[a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv}[e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Potassium	7440-09-7	NA		9.00E-01	1		5.50E+00	4.07E+03	7.39E+02		7.39E+02
Rhodium	7440-16-6	NA		9.00E-01	1		6.00E+01	4.07E+03	6.78E+01		6.78E+01
Selenium	7782-49-2	NA	9.00E-01		1		1.80E+01	1.26E+03	7.01E+01		7.01E+01
Silicon	7440-21-3	NA		9.00E-01	1		3.00E+01	4.07E+03	1.36E+02		1.36E+02
Silver	7440-22-4	NA	9.00E-01		1		1.00E-01	2.98E+02	2.98E+03		2.98E+03
Sodium	7440-23-5	NA		9.00E-01	1		1.00E+02	4.07E+03	4.07E+01		4.07E+01
Strontium	7440-24-6	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Tantalum	7440-25-7	NA		9.00E-01	1		6.50E+02	4.07E+03	6.26E+00		6.26E+00
Thallium	7440-28-0	NA	9.00E-01		1		4.40E+01	1.50E+04	3.41E+02		3.41E+02
Tin	7440-31-5	NA		9.00E-01	1		2.50E+02	4.07E+03	1.63E+01		1.63E+01
Tungsten	7440-33-7	NA		9.00E-01	1		1.50E+02	4.07E+03	2.71E+01		2.71E+01
Uranium	7440-61-1	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Vanadium	7440-62-2	NA		9.00E-01	1		1.00E+03	4.07E+03	4.07E+00		4.07E+00
Yttrium	7440-65-5	NA		9.00E-01	1		5.00E+02	4.07E+03	8.13E+00		8.13E+00
Zinc	7440-66-6	NA	5.70E-01				6.20E+01	4.58E+03	7.38E+01		7.38E+01
Zirconium	7440-67-7	NA		9.00E-01	1		3.00E+03	4.07E+03	1.36E+00		1.36E+00
Non-metals and Anions											
Ammonia/Ammonium	7664-41-7	NA					No Kd	5.00E+02	1.00E+00	Default	1.00E+00
Bromide	24959-67-9	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Chloride	16887-00-6	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Cyanide	57-12-5	NA	9.00E-01		1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Fluoride	16984-48-8	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Hydroxide	14280-30-9	NA	NA				No Kd	NA	NA		NA
Iodine	7553-56-2	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Nitrate	14797-55-8	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Nitrite	14797-65-0	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Phosphate	14265-44-2	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Phosphorus	7723-14-0	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Sulfate	14808-79-8	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Total Sulfur	63705-05-5	NA		9.00E-01	1		No Kd	4.07E+03	1.00E+00	Default	1.00E+00
Priority Pollutants											
Carbon Dioxide	124-38-9	NA					No Kd	NA	NA		NA
Nitrogen Dioxide	10102-44-0	NA					No Kd	5.00E+02	1.00E+00	Default	1.00E+00
Ozone	10028-15-6	NA					No Kd	5.00E+02	1.00E+00	Default	1.00E+00
Particulate Matter	No CAS #	NA	NA				No Kd	NA	NA		NA
Sulfur Dioxode	7446-09-5	NA					No Kd	5.00E+02	1.00E+00	Default	1.00E+00
Radionuclides											
Americium-241	1596-10-2	NA		9.00E-01	1		7.00E+02	4.07E+03	5.81E+00		5.81E+00
Antimony-125	14234-35-6	NA	9.00E-01		1		4.50E+01	7.00E+00	1.56E-01		1.56E-01
Barium-137	13981-97-0	NA	9.00E-01		1		6.00E+01	2.00E+02	3.33E+00		3.33E+00
Cadmium-113	None	NA	3.40E+00				6.50E+00	3.46E+03	5.32E+02		5.32E+02
Cesium-134	13967-70-9	NA		9.00E-01	1		1.00E+03	4.07E+03	4.07E+00		4.07E+00
Cesium-137	10045-97-3	NA		9.00E-01	1		1.00E+03	4.07E+03	4.07E+00		4.07E+00
Europium-154	15585-10-1	NA		9.00E-01	1		6.50E+02	4.07E+03	6.26E+00		6.26E+00
Europium-155	14391-16-3	NA		9.00E-01	1		6.50E+02	4.07E+03	6.26E+00		6.26E+00
Nickel-63	13981-37-8	NA	9.00E-01		1		1.50E+02	2.80E+01	1.87E-01		1.87E-01
Plutonium-239	15117-48-3	NA		9.00E-01	1		4.50E+03	4.07E+03	9.04E-01		9.04E-01
Plutonium-241	14119-32-5	NA		9.00E-01	1		4.50E+03	4.07E+03	9.04E-01		9.04E-01
Samarium-151	15715-94-3	NA		9.00E-01	1		6.50E+02	4.07E+03	6.26E+00		6.26E+00
Strontium-90	10098-97-2	NA		9.00E-01	1		3.50E+01	4.07E+03	1.16E+02		1.16E+02
Technetium-99	14133-79-7	NA		9.00E-01	1		1.50E+00	4.07E+03	2.71E+03		2.71E+03
Tritium	10028-17-8	NA		9.00E-01	1		No Kd	4.07E+03			9.00E-01
Yttrium-90	10098-91-6	NA		9.00E-01	1		5.00E+02	4.07E+03	8.13E+00		8.13E+00
Uranium-232	14158-29-3	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Uranium-233	13968-55-3	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Uranium-234	13966-29-5	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Uranium-235	15117-96-1	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Uranium-236	13982-70-2	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]
Uranium-238	7440-61-1	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Actinium-227	14952-40-0	NA		9.00E-01	1		1.50E+03	4.07E+03	2.71E+00		2.71E+00
Americium-243	14993-75-0	NA		9.00E-01	1		7.00E+02	4.07E+03	5.81E+00		5.81E+00
Carbon-14	14762-75-5	NA		9.00E-01	1		No Kd	4.07E+03			9.00E-01
Cobalt-60	10198-40-0	NA		9.00E-01	1		4.50E+01	4.07E+03	9.04E+01		9.04E+01
Curium-242	15510-73-3	NA		9.00E-01	1		2.00E+03	4.07E+03	2.03E+00		2.03E+00
Curium-243	15757-87-6	NA		9.00E-01	1		2.00E+03	4.07E+03	2.03E+00		2.03E+00
Curium-244	13981-15-2	NA		9.00E-01	1		2.00E+03	4.07E+03	2.03E+00		2.03E+00
Europium-152	14683-23-9	NA		9.00E-01	1		6.50E+02	4.07E+03	6.26E+00		6.26E+00
Iodine-129	15046-84-1	NA		9.00E-01	1		6.00E+01	4.07E+03	6.78E+01		6.78E+01
Neptunium-237	13994-20-2	NA		9.00E-01	1		3.00E+01	4.07E+03	1.36E+02		1.36E+02
Nickel-59	14336-70-0	NA	9.00E-01		1		1.50E+02	2.80E+01	1.87E-01		1.87E-01
Niobium-93	None	NA		9.00E-01	1		3.50E+02	4.07E+03	1.16E+01		1.16E+01
Plutonium-238	13981-16-3	NA		9.00E-01	1		4.50E+03	4.07E+03	9.04E-01		9.04E-01
Plutonium-240	14119-33-6	NA		9.00E-01	1		4.50E+03	4.07E+03	9.04E-01		9.04E-01
Plutonium-242	13982-10-0	NA		9.00E-01	1		4.50E+07	4.07E+03	9.03E-05		9.03E-05
Protactinium-231	14331-85-2	NA		9.00E-01	1		2.50E+03	4.07E+03	1.63E+00		1.63E+00
Radium-226	13982-63-3	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Radium-228	15262-20-1	NA		9.00E-01	1		4.50E+02	4.07E+03	9.04E+00		9.04E+00
Ruthenium-106	13967-48-1	NA		9.00E-01	1		3.50E+02	4.07E+03	1.16E+01		1.16E+01
Selenium-79	None	NA	9.00E-01		1		3.00E+02	1.26E+03	4.21E+00		4.21E+00
Thorium-229	15594-54-4	NA		9.00E-01	1		1.50E+05	4.07E+03	2.71E-02		2.71E-02
Thorium-232	7440-29-1	NA		9.00E-01	1		1.50E+05	4.07E+03	2.71E-02		2.71E-02
Tin-126	15832-50-5	NA		9.00E-01	1		2.50E+02	4.07E+03	1.63E+01		1.63E+01
Zirconium-93	15751-77-6	NA		9.00E-01	1		3.00E+03	4.07E+03	1.36E+00		1.36E+00

NA = Not applicable

[a] $\log_{10}$ of K_{ow} values in Table 4.1

[b] Data published in Appendix C, Table C-6 of EPA (1999)

[c] Calculated or chosen as described in Appendix C, Sect. C-1.6 of EPA (1999)

Table C2-10. Aquatic Sediment-to-Animal Transfer Factors (BASF) for Ecological Receptors (mg/kg tissue wet weight/mg/kg sediment)

Constituent of Potential Concern	CAS Registry Number	Log K_{ow} [a]	EPA (1999) BASF[b]	BASF Calculated by EPA (1999) Methods[c]	Notes	Ecology Guidance BASF	Kd[d]	BCF_{inv} [e]	SAIC computed BASF[f]	Comments	Preferred BASF[g]

[d] Sediment Kd values from Appendix B Table B-1-1 or soil Kds from Baes and others. (1984) Fig. 2.31 for radionuclides and other elements not shown in Appendix B Table B-1-1

[e] BCF_{inv} values from Table C2-8

[f] Calculated by using BCF and Kd: BASF = BCF-I/Kd

[g] Selection criteria described in Sect. 8.2.4.4

[h] Calculated by using log K_{ow}: log BASF = 0.819 x log K_{ow} -1.146 (Southworth, Beauchamp, and Schmieder 1978)

[i] Calculated by using the BASF for TCDD from Appendix C, Table C-6 of EPA (1999) and BEFs for other congeners

[j] Value for Aroclor 1254 from Appendix C of EPA (1999), Table C-6, was used for PCB mixtures

[k] Benzo(a)pyrene value from Appendix C of EPA (1999), Table C-6, was used as a surrogate value

[l] Average of values for other inorganics as published in Appendix C of EPA (1999), Table C-6

References for Appendix C-2

Baes CF, Sharp RD, Sjoreen AL, and Shor RW. 1984. *A Review and Analysis of Parameters for Assessing Transport of Environmentally Released Radionuclides through Agriculture*, ORNL-5786, September 1984. Martin Marietta Energy Systems, Oak Ridge, Tennessee, USA.

Corp N and Morgan AJ. 1991. *Accumulation of heavy metals from polluted soils by the earthworm, Lumbricus rubellus: Can laboratory exposure of "control" worms reduce biomonitoring problems?*, Environmental Pollution, volume 74, p 39-52.

HAZWRAP. 1994. *Loring Air Force Base Ecological Risk Methodology*, August 1994, Hazardous Waste Remedial Actions Program. Lockheed Martin Energy Systems, Inc., Oak Ridge, Tennessee, USA.

NRC. 1992. *Residual Radioactive Contamination from Decommissioning, Technical Basis for Translating Contamination Levels to Annual Total Effective Dose Equivalent*, Final Report, NUREG/CR-5512, PNL-7794, Volume 1. US Nuclear Regulatory Commission, Washington, D.C, USA.

Appendix C-3

Toxicity Reference Values for Plants, Earthworms, Birds, Mammals, Sediment-Dwelling Biota, and Surface Water Organisms

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Organic Compounds						
Aromatic Halogenated Hydrocarbons						
4-Chloro-3-methylphenol	59-50-7	No data			No data	
2,3,4,6-Tetrachlorophenol	58-90-2	No data			No data	
Aromatic Nonhalogenated Hydrocarbons						
2-Nitrotoluene	88-72-2	No data			No data	
4-Nitrobiphenyl	92-93-3	No data			No data	
Benzaldehyde	100-52-7	No data			No data	
Benzene	71-43-2	No data			No data	
Benzyl alcohol	100-51-6	No data			No data	
Ethyl benzene	100-41-4	No data			No data	
m-Xylene	108-38-3	No data			No data	
o-Xylene	95-47-6	No data			No data	
p-Xylene	106-42-3	No data			No data	
Styrene	100-42-5	No data			3.00E+02	3.00E+02
Toluene	108-88-3	No data			2.00E+02	2.00E+02
Non-aromatic Nonhalogenated Hydrocarbons						
1,2-Epoxybutane	106-88-7	No data			No data	
1,3-Butadiene	106-99-0	No data			No data	
1,4-Dioxane	123-91-1	No data			No data	
1-Methylpropyl alcohol	78-92-2	No data			No data	
1-Nitropropane	108-03-2	No data			No data	
2,2,4-Trimethylpentane	540-84-1	No data			No data	
2-Butanone	78-93-3	No data			No data	
2-Butenaldehyde (2-Butenal)	4170-30-3	No data			No data	
2-Ethoxyethanol	110-80-5	No data			No data	
2-Heptanone	110-43-0	No data			No data	
2-Hexanone	591-78-6	No data			No data	
2-Methoxyethanol	109-86-4	No data			No data	
2-Methyl-2-propanol	75-65-0	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
2-Methyl-2-propenenitrile	126-98-7	No data			No data	
2-Methylaziridine	75-55-8	No data			No data	
2-Methylpropyl alcohol	78-83-1	No data			No data	
2-Pentanone	107-87-9	No data			No data	
2-Propanone (Acetone)	67-64-1	No data			No data	
2-Propene-1-ol	107-18-6	No data			No data	
2-Propyl alcohol	67-63-0	No data			No data	
3-Heptanone	106-35-4	No data			No data	
3-Methyl-1-butanol	123-51-3	No data			No data	
3-Methyl-2-butanone	563-80-4	No data			No data	
3-Pentanone	96-22-0	No data			No data	
4-Heptanone	123-19-3	No data			No data	
4-Methyl-2-pentanone	108-10-1	No data			No data	
4-Methyl-3-penten-2-one	141-79-7	No data			No data	
5-Methyl-2-hexanone	110-12-3	No data			No data	
Acetaldehyde	75-07-0	No data			No data	
Acetamide	60-35-5	No data			No data	
Acetic acid	64-19-7	No data			No data	
Acetic acid ethyl ester	141-78-6	No data			No data	
Acetic acid n-butyl ester	123-86-4	No data			No data	
Acetonitrile	75-05-8	No data			No data	
Acrolein	107-02-8	No data			No data	
Acrylonitrile	107-13-1	No data			No data	
Bis(isopropyl)ether	108-20-3	No data			No data	
Butane	106-97-8	No data			No data	
Carbon disulfide	75-15-0	No data			No data	
Cyanogen	460-19-5	No data			No data	
Cyclohexane	110-82-7	No data			No data	
Cyclohexanone	108-94-1	No data			No data	
Cyclohexene	110-83-8	No data			No data	
Cyclopentane	287-92-3	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Ethyl alcohol	64-17-5	No data			No data	
Ethyl ether	60-29-7	No data			No data	
Ethyl methacrylate	97-63-2	No data			No data	
Formaldehyde	50-00-0	No data			No data	
Formamide	75-12-7	No data			No data	
Formic acid	64-18-6	No data			No data	
Formic acid, methyl ester	107-31-3	No data			No data	
Glycidylaldehyde	765-34-4	No data			No data	
Methyl acetate	79-20-9	No data			No data	
Methyl alcohol	67-56-1	No data			No data	
Methyl isocyanate	624-83-9	No data			No data	
Methyl methacrylate	80-62-6	No data			No data	
Methyl tert-butyl ether	1634-04-4	No data			No data	
Methylacetylene	74-99-7	No data			No data	
Methylcyclohexane	108-87-2	No data			No data	
N,N-Dimethylacetamide	127-19-5	No data			No data	
n-Butyl alcohol	71-36-3	No data			No data	
n-Heptane	142-82-5	No data			No data	
n-Hexane	110-54-3	No data			No data	
Nitromethane	75-52-5	No data			No data	
n-Nonane	111-84-2	No data			No data	
n-Octane	111-65-9	No data			No data	
n-Pentane	109-66-0	No data			No data	
n-Propionaldehyde	123-38-6	No data			No data	
n-Propyl alcohol	71-23-8	No data			No data	
n-Valeraldehyde	110-62-3	No data			No data	
Oxirane	75-21-8	No data			No data	
p-Cymene	99-87-6	No data			No data	
Phosgene	75-44-5	No data			No data	
Propargyl alcohol	107-19-7	No data			No data	
Propionic acid	79-09-4	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Propionitrile	107-12-0	No data			No data	
Propylene gylcol monomethyl ether	107-98-2	No data			No data	
p-tert-Butyltoluene	98-51-1	No data			No data	
Triethylamine	121-44-8	No data			No data	
Trimethylamine	75-50-3	No data			No data	
Vinyl acetate	108-05-4	No data			No data	
Non-aromatic Halogenated Hydrocarbons						
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data			No data	
1,1,1,2-Tetrachloroethane	630-20-6	No data			No data	
1,1,1-Trichloroethane	71-55-6	No data			No data	
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No data			No data	
1,1,2,2-Tetrachloroethane	79-34-5	No data			No data	
1,1,2,2-Tetrachloroethene	127-18-4	No data			No data	
1,1,2-Trichloroethane	79-00-5	No data			No data	
1,1,2-Trichloroethylene	79-01-6	No data			No data	
1,1-Dichloroethane	75-34-3	No data			No data	
1,1-Dichloroethene	75-35-4	No data			No data	
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No data			No data	
1,2,3-Trichloropropane	96-18-4	No data			No data	
1,2-Dibromo-3-chloropropane	96-12-8	No data			No data	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No data			No data	
1,2-Dichloroethane	107-06-2	No data			No data	
1,2-Dichloroethylene	540-59-0	No data			No data	
1,2-Dichloropropane	78-87-5	No data			No data	
1,3-Dichloropropene	542-75-6	No data			No data	
1,4-Dichloro-2-butene	764-41-0	No data			No data	
1-Chloroethene	75-01-4	No data			No data	
2,2-Dichloropropionic acid	75-99-0	No data			No data	
2-Chloropropane	75-29-6	No data			No data	
3-Chloropropene (allyl chloride)	107-05-1	No data			No data	
Bromochloromethane	74-97-5	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Bromodichloromethane	75-27-4	No data			No data	
Bromoethene	593-60-2	No data			No data	
Bromoform	75-25-2	No data			No data	
Bromomethane	74-83-9	No data			No data	
Carbon tetrachloride	56-23-5	No data			No data	
Chlorodibromomethane	124-48-1	No data			No data	
Chlorodifluoromethane	75-45-6	No data			No data	
Chloroethane	75-00-3	No data			No data	
Chloroform	67-66-3	No data			No data	
Chloromethane	74-87-3	No data			No data	
Chloropentafluoroethane	76-15-3	No data			No data	
cis-1,2-Dichloroethene	156-59-2	No data			No data	
cis-1,3-Dichloropropene	10061-01-5	No data			No data	
Cyanogen bromide	506-68-3	No data			No data	
Cyanogen chloride	506-77-4	No data			No data	
Dichlorodifluoromethane	75-71-8	No data			No data	
Dichlorofluoromethane	75-43-4	No data			No data	
Dichloromethane	75-09-2	No data			No data	
Difluorodibromomethane	75-61-6	No data			No data	
Hexafluoroacetone	684-16-2	No data			No data	
Iodomethane	74-88-4	No data			No data	
Methylene bromide	74-95-3	No data			No data	
Pentachloroethane	76-01-7	No data			No data	
trans-1,2-Dichloroethene	156-60-5	No data			No data	
trans-1,3-Dichloropropene	10061-02-6	No data			No data	
Trichloroacetic acid	76-03-9	No data			No data	
Trichlorofluoroethane	27154-33-2	No data			No data	
Trichlorofluoromethane	75-69-4	No data			No data	
Trifluorobromomethane	75-63-8	No data			No data	
Dioxin and Furan Compounds						
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No data			No data	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No data			No data	
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	No data			No data	
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No data			No data	
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	No data			No data	
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No data			No data	
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	No data			No data	
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No data			No data	
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	No data			No data	
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No data			No data	
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No data			No data	
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No data			No data	
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	No data			No data	
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No data			No data	
Dibenzofuran	132-64-9	No data			No data	
Octachlorodibenzo(p)dioxin	3268-87-9	No data			No data	
Octachlorodibenzofuran	39001-02-0	No data			No data	
PCBs						
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No data			No data	
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No data			No data	
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data			No data	
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data			No data	
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data			No data	
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data			No data	
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data			No data	
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data			No data	
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No data			No data	
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data			No data	
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data			No data	
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No data			No data	
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data			No data	
Polychlorinated biphenyls (PCBs)	1336-36-3	1.00E+01			4.00E+01	1.00E+01
Phthalates						
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	No data			No data	
Butylbenzyl phthalate	85-68-7	No data			No data	
Dibutyl phthalate	84-74-2	No data			2.00E+02	2.00E+02
Diethyl phthalate	84-66-2	No data			1.00E+02	1.00E+02
Dimethylphthalate	131-11-3	No data			No data	
n-Dioctyl phthalate	117-84-0	No data			No data	
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)						
2-Chloronapthalene	91-58-7	No data			No data	
2-Methyl naphthalene	91-57-6	No data			No data	
5-Nitroacenaphthene	602-87-9	No data			No data	
Acenaphthene	83-32-9	No data			2.00E+01	2.00E+01
Acenaphthylene	208-96-8	No data			No data	
Anthracene	120-12-7	No data			No data	
Fluorene	86-73-7	No data			No data	
Indene	95-13-6	No data			No data	
Naphthalene	91-20-3	No data			No data	
Phenanthrene	85-01-8	No data			No data	
Pyrene	129-00-0	No data			No data	
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)						
3-Methylcholanthrene	56-49-5	No data			No data	
5-Methylchrysene	3697-24-3	No data			No data	
Benzo(a)anthracene	56-55-3	1.20E+00	d		No data	1.20E+00
Benzo(a)pyrene	50-32-8	1.20E+00			No data	1.20E+00
Benzo(b)fluoranthene	205-99-2	1.20E+00			No data	1.20E+00
Benzo(e)pyrene	192-97-2	No data			No data	
Benzo(g,h,i)perylene	191-24-2	No data			No data	
Benzo(j)fluoranthene	205-82-3	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Benzo(k)fluoranthene	207-08-9	1.20E+00	d		No data	1.20E+00
Benzo[a,i]pyrene	191-30-0	No data			No data	
Chrysene	218-01-9	1.20E+00	d		No data	1.20E+00
Dibenz(a,h)anthracene	53-70-3	1.20E+00	d		No data	1.20E+00
Dibenz[a,h]acridine	226-36-8	No data			No data	
Dibenz[a,j]acridine	224-42-0	No data			No data	
Dibenzo(a,e)fluoranthene	5385-75-1	No data			No data	
Dibenzo(a,h)fluoranthene	no cas #	No data			No data	
Dibenzo[a,e]pyrene	192-65-4	No data			No data	
Dibenzo[a,h]pyrene	189-64-0	No data			No data	
Dibenzo[a,i]pyrene	189-55-9	No data			No data	
Fluoranthene	206-44-0	No data			No data	
Hexachloronaphthalene	1335-87-1	No data			No data	
Indeno(1,2,3-cd)pyrene	193-39-5	1.20E+00	d		No data	1.20E+00
Octachloronaphthalene	2234-13-1	No data			No data	
Pentachloronaphthalene	1321-64-8	No data			No data	
Tetrachloronaphthalene	1335-88-2	No data			No data	
Trichloronaphthalene	1321-65-9	No data			No data	
Light Substituted Benzene Compounds (MW <200 g/mole)						
1,2,3-Trichlorobenzene	87-61-6	No data			No data	
1,2,4-Trichlorobenzene	120-82-1	No data			No data	
1,2,4-Trimethyl benzene	95-63-6	No data			No data	
1,2-Dichlorobenzene	95-50-1	No data			No data	
1,3,5-Trimethyl benzene	108-67-8	No data			No data	
1,3-Dichlorobenzene	541-73-1	No data			No data	
1,3-Dinitrobenzene	99-65-0	No data			No data	
1,4-Dichlorobenzene	106-46-7	No data			No data	
1,4-Dinitrobenzene	100-25-4	No data			No data	
2,4,5-Trichlorophenol	95-95-4	No data			4.00E+00	4.00E+00
2,4,6-Trichlorophenol	88-06-2	No data			No data	
2,4-Dichlorophenol	120-83-2	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
2,4-Dimethylphenol	105-67-9	No data			No data	
2,4-Dinitrophenol	51-28-5	No data			2.00E+01	2.00E+01
2,4-Dinitrotoluene	121-14-2	No data			No data	
2,6-Dinitrotoluene	606-20-2	No data			No data	
2-Chlorophenol	95-57-8	No data			No data	
2-Chlorotoluene	95-49-8	No data			No data	
2-Nitrophenol	88-75-5	No data			No data	
4,6-Dinitro-o-cresol	534-52-1	No data			No data	
4-Chlorotoluene	106-43-4	No data			No data	
4-Nitrophenol	100-02-7	No data			No data	
alpha-Methylstyrene	98-83-9	No data			No data	
Aniline	62-53-3	No data			No data	
Benzotrichloride	98-07-7	No data			No data	
Benzyl chloride	100-44-7	No data			No data	
Bromobenzene	108-86-1	No data			No data	
Chlorobenzene	108-90-7	No data			No data	
Cumene	98-82-8	No data			No data	
m-Cresol	108-39-4	No data			No data	
n-Butyl benzene	104-51-8	No data			No data	
Nitrobenzene	98-95-3	No data			No data	
n-Propyl benzene	103-65-1	No data			No data	
o-Cresol	95-48-7	No data			No data	
o-Dinitrobenzene	528-29-0	No data			No data	
o-Nitroaniline	88-74-4	No data			No data	
o-Toluidine	95-53-4	No data			No data	
p-Chloroaniline	106-47-8	No data			No data	
p-Cresol	106-44-5	No data			No data	
Phenol	108-95-2	No data			7.00E+01	7.00E+01
p-Nitrochlorobenzene	100-00-5	No data			No data	
p-Toluidine	106-49-0	No data			No data	
sec-Butyl benzene	135-98-8	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
tert-Butyl benzene	98-06-6	No data			No data	
Toluene-2,6-diamine	823-40-5	No data			No data	
Trimethyl benzene	25551-13-7	No data			No data	
Other Light Semivolatile Compounds (molecular weight <200 g/mole)						
1,1'-Biphenyl	92-52-4	No data			6.00E+01	6.00E+01
1,1-Dimethylhydrazine	57-14-7	No data			No data	
1,2-Dimethylhydrazine	540-73-8	No data			No data	
1,2-Diphenylhydrazine	122-66-7	No data			No data	
1,3-Propane sultone	1120-71-4	No data			No data	
2,4-Toluene diisocyante	584-84-9	No data			No data	
2-Chloroacetophenone	532-27-4	No data			No data	
2-Propenoic acid	79-10-7	No data			No data	
4,4-Methylenedianiline	101-77-9	No data			No data	
Acetophenone	98-86-2	No data			No data	
Benzoic acid	65-85-0	No data			No data	
bis(2-Chloroethoxy)methane	111-91-1	No data			No data	
bis(2-Chloroethyl) ether	111-44-4	No data			No data	
Chlorocyclopentadiene	41851-50-7	No data			No data	
Cyclohexanol	108-93-0	No data			No data	
Dichloroisopropyl ether	108-60-1	No data			No data	
Dichloromethyl ether	542-88-1	No data			No data	
Dichloropentadiene	no cas #	No data			No data	
Dimethyl sulfate	77-78-1	No data			No data	
Dimethylaniline	121-69-7	No data			No data	
Di-n-propylnitrosamine	621-64-7	No data			No data	
Diphenyl ether	101-84-8	No data			No data	
Epichlorohydrin	106-89-8	No data			No data	
Ethyl carbamate (urethane)	51-79-6	No data			No data	
Ethyl methanesulfonate	62-50-0	No data			No data	
Ethylene dibromide	106-93-4	No data			No data	
Ethylene glycol	107-21-1	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Ethylene glycol monobutyl ether	111-76-2	No data			No data	
Ethylene glycol monoethyl ether acetate	111-15-9	No data			No data	
Ethylene thiourea	96-45-7	No data			No data	
Furfural	98-01-1	No data			No data	
Maleic hydrazide	123-33-1	No data			No data	
Malononitrile	109-77-3	No data			No data	
Methyl styrene (mixed isomers)	25013-15-4	No data			No data	
Methylhydrazine	60-34-4	No data			No data	
N,N-Diphenylamine	122-39-4	No data			No data	
Nitric acid, propyl ester	627-13-4	No data			No data	
N-Nitrosodi-n-butylamine	924-16-3	No data			No data	
N-Nitrosomorpholine	59-89-2	No data			No data	
N-Nitroso-N,N-dimethylamine	62-75-9	No data			No data	
o-Anisidine	90-04-0	No data			No data	
Oxalic acid	144-62-7	No data			No data	
Phthalic anhydride	85-44-9	No data			No data	
p-Phthalic acid	100-21-0	No data			No data	
Pyridine	110-86-1	No data			No data	
Quinoline	91-22-5	No data			No data	
Quinone	106-51-4	No data			No data	
Safrole	94-59-7	No data			No data	
Tetrahydrofuran	109-99-9	No data			No data	
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)						
1,2,4,5-Tetrachlorobenzene	95-94-3	No data			No data	
1,3,5-Trinitrobenzene	99-35-4	No data			No data	
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No data			No data	
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No data			No data	
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No data			No data	
3,3-Dichlorobenzidine	91-94-1	No data			No data	
3,3'-Dimethoxybenzidine	119-90-4	No data			No data	
4-Bromophenylphenyl ether	101-55-3	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Ammonium perfluorooctanoate	3825-26-1	No data			No data	
Azobenzene	103-33-3	No data			No data	
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data			No data	
Captan	133-06-2	No data			No data	
Chlorobenzilate	510-15-6	No data			No data	
Dibutylphosphate	107-66-4	No data			No data	
Dimethyl aminoazobenzene	60-11-7	No data			No data	
Hexachlorobenzene	118-74-1	No data			No data	
Hexachlorobutadiene	87-68-3	No data			No data	
Hexachlorocyclopentadiene	77-47-4	1.00E-01			1.00E+01	1.00E-01
Hexachloroethane	67-72-1	No data			No data	
Hexachlorophene	70-30-4	No data			No data	
Hexamethylene-1,5-diisocyanate	822-06-0	No data			No data	
Mirex	2385-85-5	No data			No data	
Nitrofen	1836-75-5	No data			No data	
Pentachlorobenzene	608-93-5	No data			No data	
Pentachloronitrobenzene	82-68-8	No data			No data	
Pentachlorophenol	87-86-5	1.73E+00			3.00E+00	1.73E+00
Picric acid	88-89-1	No data			No data	
Pronamide	23950-58-5	No data			No data	
Strychnine	57-24-9	No data			No data	
Terphenyls	26140-60-3	No data			No data	
Tributyl phosphate	126-73-8	No data			No data	
Trifluralin	1582-09-8	No data			No data	
Triphenylamine	603-34-9	No data			No data	
Herbicides and Organochlorinated Pesticides						
2,4,5-T	93-76-5	No data			No data	
2,4-D and esters	94-75-7	No data			No data	
4,4-DDD	72-54-8	No data			No data	
4,4-DDE	72-55-9	No data			No data	
4,4-DDT	50-29-3	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Aldrin	309-00-2	No data			No data	
alpha-BHC	319-84-6	No data			No data	
beta-BHC	319-85-7	No data			No data	
Chlordane	57-74-9	No data			No data	
Delta-BHC	319-86-8	No data			No data	
Dieldrin	60-57-1	No data			No data	
Endothall	145-73-3	No data			No data	
Endrin	72-20-8	No data			No data	
gamma-BHC (Lindane)	58-89-9	No data			No data	
Heptachlor	76-44-8	1.00E+00			No data	1.00E+00
Isodrin	465-73-6	No data			No data	
Methoxychlor	72-43-5	No data			No data	
Silvex (2,4,5-TP)	93-72-1	No data			No data	
Toxaphene	8001-35-2	No data			No data	
Inorganic Chemicals and Compounds						
Metals						
Aluminum	7429-90-5	5.00E+00			5.00E+01	5.00E+00
Antimony	7440-36-0	5.00E-01			5.00E+00	5.00E-01
Arsenic	7440-38-2	1.00E+00			1.00E+01	1.00E+00
Barium	7440-39-3	5.00E+00			5.00E+02	5.00E+00
Beryllium	7440-41-7	1.00E-01			1.00E+01	1.00E-01
Bismuth	7440-69-9	No data			No data	
Boron	7440-42-8	No data			5.00E-01	5.00E-01
Cadmium	7440-43-9	2.00E-01			4.00E+00	2.00E-01
Calcium	7440-70-2	No data			No data	
Chromium (and VI)	18540-29-9	1.80E-02			1.00E+00	1.80E-02
Cobalt	7440-48-4	No data			2.00E+01	2.00E+01
Copper	7440-50-8	1.00E+00			1.00E+02	1.00E+00
Iron	7439-89-6	No data			No data	
Lead	7439-92-1	4.60E+00			5.00E+01	4.60E+00

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Lithium	7439-93-2	No data			2.00E+00	2.00E+00
Magnesium	7439-95-4	No data			No data	
Manganese	7439-96-5	No data			5.00E+02	5.00E+02
Mercury	7439-97-6	3.50E-01			3.00E-01	3.50E-01
Molybdenum	7439-98-7	No data			2.00E+00	2.00E+00
Nickel	7440-02-0	2.50E+01			3.00E+01	2.50E+01
Potassium	7440-09-7	No data			No data	
Rhodium	7440-16-6	No data			No data	5.00E-02
Selenium	7782-49-2	5.00E-02			1.00E+00	
Silicon	7440-21-3	No data			No data	
Silver	7440-22-4	2.00E-02			2.00E+00	2.00E-02
Sodium	7440-23-5	No data			No data	
Strontium	7440-24-6	No data			No data	
Tantalum	7440-25-7	No data			No data	
Thallium	7440-28-0	1.00E-02			1.00E+00	1.00E-02
Tin	7440-31-5	No data			5.00E+01	5.00E+01
Tungsten	7440-33-7	No data			No data	
Uranium	7440-61-1	No data			5.00E+00	5.00E+00
Vanadium	7440-62-2	No data			2.00E+00	2.00E+00
Yttrium	7440-65-5	No data			No data	
Zinc	7440-66-6	9.00E-01			5.00E+01	9.00E-01
Zirconium	7440-67-7	No data			No data	
Non-metals and Anions						
Ammonia/Ammonium	7664-41-7	No data			No data	
Bromide	24959-67-9	No data			1.00E+01	1.00E+01
Chloride	16887-00-6	No data			No data	
Cyanide	57-12-5	No data			No data	
Fluoride	16984-48-8	No data			2.00E+02	2.00E+02
Hydroxide	14280-30-9	No data			No data	
Iodine	7553-56-2	No data			4.00E+00	4.00E+00
Nitrate	14797-55-8	No data			No data	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Nitrite	14797-65-0	No data			No data	
Phosphate	14265-44-2	No data			No data	
Phosphorus	7723-14-0	No data			No data	
Sulfate	14808-79-8	No data			No data	
Total Sulfur	63705-05-5	No data			No data	
Priority Pollutants						
Carbon Dioxide	124-38-9	No data			No data	
Nitrogen Dioxide	10102-44-0	No data			No data	
Ozone	10028-15-6	No data			No data	
Particulate Matter	No CAS #	No data			No data	
Sulfur Dioxode	7446-09-5	No data			No data	
Radionuclides[e]						
Actinium-227	14952-40-0	NA			NA	
Americium-241	1596-10-2	NA			NA	
Americium-243	14993-75-0	NA			NA	
Antimony-125	14234-35-6	NA			NA	
Barium-137	13981-97-0	NA			NA	
Cadmium-113	None	NA			NA	
Carbon-14	14762-75-5	NA			NA	
Cesium-134	13967-70-9	NA			NA	
Cesium-137	10045-97-3	NA			NA	
Cobalt-60	10198-40-0	NA			NA	
Curium-242	15510-73-3	NA			NA	
Curium-243	15757-87-6	NA			NA	
Curium-244	13981-15-2	NA			NA	
Europium-152	14683-23-9	NA			NA	
Europium-154	15585-10-1	NA			NA	
Europium-155	14391-16-3	NA			NA	
Iodine-129	15046-84-1	NA			NA	
Neptunium-237	13994-20-2	NA			NA	

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)
Nickel-59	14336-70-0	NA			NA	
Nickel-63	13981-37-8	NA			NA	
Niobium-93	7440-03-1	NA			NA	
Plutonium-238	13981-16-3	NA			NA	
Plutonium-239	15117-48-3	NA			NA	
Plutonium-240	14119-33-6	NA			NA	
Plutonium-241	14119-32-5	NA			NA	
Plutonium-242	13982-10-0	NA			NA	
Protactinium-231	14331-85-2	NA			NA	
Radium-226	13982-63-3	NA			NA	
Radium-228	15262-20-1	NA			NA	
Ruthenium-106	13967-48-1	NA			NA	
Samarium-151	15715-94-3	NA			NA	
Selenium-79	None	NA			NA	
Strontium-90	10098-97-2	NA			NA	
Technetium-99	14133-79-7	NA			NA	
Thorium-229	15594-54-4	NA			NA	
Thorium-232	7440-29-1	NA			NA	
Tin-126	15832-50-5	NA			NA	
Tritium	10028-17-8	NA			NA	
Uranium-232	14158-29-3	NA			NA	
Uranium-233	13968-55-3	NA			NA	
Uranium-234	13966-29-5	NA			NA	
Uranium-235	15117-96-1	NA			NA	
Uranium-236	13982-70-2	NA			NA	
Uranium-238	7440-61-1	NA			NA	
Yttrium-90	10098-91-6	NA			NA	
Zirconium-93	15751-77-6	NA			NA	

NA = Not applicable

[a] Published in Appendix E of EPA (1999), Table E-5

Table C3-1. Toxicity Reference Values (TRVs) for Plants

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997a[b] (mg/kg)	Recommended TRV[c] (mg/kg)

[b] Published in Table 1 of Efroymson et al. 1997a

[c] Selection criteria: EPA (1999) values are preferred over Efroymson et al. (1997a) values

[d] Benzo(a)pyrene value from Appendix E of EPA (1999), Table E-5, was used as a surrogate value

[e] TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for plants from all radionuclides combined cannot exceed 1 rad/d.

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Organic Compounds								
Aromatic Halogenated Hydrocarbons								
4-Chloro-3-methylphenol	59-50-7	No data			No data	5.00E-01	e	5.00E-01
2,3,4,6-Tetrachlorophenol	58-90-2	No data			No data	5.00E-01	e	5.00E-01
Aromatic Nonhalogenated Hydrocarbons								
2-Nitrotoluene	88-72-2	No data			No data	7.00E+00	f	7.00E+00
4-Nitrobiphenyl	92-93-3	No data			No data	No data		
Benzaldehyde	100-52-7	No data			No data	7.00E+00	f	7.00E+00
Benzene	71-43-2	No data			No data	5.00E-01		5.00E-01
Benzyl alcohol	100-51-6	No data			No data	7.00E+00	f	7.00E+00
Ethyl benzene	100-41-4	No data			No data	5.00E+00		5.00E+00
m-Xylene	108-38-3	No data			No data	5.00E+00	g	5.00E+00
o-Xylene	95-47-6	No data			No data	5.00E+00	g	5.00E+00
p-Xylene	106-42-3	No data			No data	5.00E+00	g	5.00E+00
Styrene	100-42-5	No data			No data	5.00E+00		5.00E+00
Toluene	108-88-3	No data			No data	3.00E+00		3.00E+00
Non-aromatic Nonhalogenated Hydrocarbons								
1,2-Epoxybutane	106-88-7	No data			No data	No data		
1,3-Butadiene	106-99-0	No data			No data	No data		
1,4-Dioxane	123-91-1	No data			No data	No data		
1-Methylpropyl alcohol	78-92-2	No data			No data	No data		
1-Nitropropane	108-03-2	No data			No data	No data		
2,2,4-Trimethylpentane	540-84-1	No data			No data	No data		
2-Butanone	78-93-3	No data			No data	No data		
2-Butenaldehyde (2-Butenal)	4170-30-3	No data			No data	No data		
2-Ethoxyethanol	110-80-5	No data			No data	No data		
2-Heptanone	110-43-0	No data			No data	No data		
2-Hexanone	591-78-6	No data			No data	No data		
2-Methoxyethanol	109-86-4	No data			No data	No data		
2-Methyl-2-propanol	75-65-0	No data			No data	No data		

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
2-Methyl-2-propenenitrile	126-98-7	No data			No data	No data		
2-Methylaziridine	75-55-8	No data			No data	No data		
2-Methylpropyl alcohol	78-83-1	No data			No data	No data		
2-Pentanone	107-87-9	No data			No data	No data		
2-Propanone (Acetone)	67-64-1	No data			No data	No data		
2-Propene-1-ol	107-18-6	No data			No data	No data		
2-Propyl alcohol	67-63-0	No data			No data	No data		
3-Heptanone	106-35-4	No data			No data	No data		
3-Methyl-1-butanol	123-51-3	No data			No data	No data		
3-Methyl-2-butanone	563-80-4	No data			No data	No data		
3-Pentanone	96-22-0	No data			No data	No data		
4-Heptanone	123-19-3	No data			No data	No data		
4-Methyl-2-pentanone	108-10-1	No data			No data	No data		
4-Methyl-3-penten-2-one	141-79-7	No data			No data	No data		
5-Methyl-2-hexanone	110-12-3	No data			No data	No data		
Acetaldehyde	75-07-0	No data			No data	No data		
Acetamide	60-35-5	No data			No data	No data		
Acetic acid	64-19-7	No data			No data	No data		
Acetic acid ethyl ester	141-78-6	No data			No data	No data		
Acetic acid n-butyl ester	123-86-4	No data			No data	No data		
Acetonitrile	75-05-8	No data			No data	No data		
Acrolein	107-02-8	No data			No data	No data		
Acrylonitrile	107-13-1	No data			No data	No data		
Bis(isopropyl)ether	108-20-3	No data			No data	No data		
Butane	106-97-8	No data			No data	No data		
Carbon disulfide	75-15-0	No data			No data	No data		
Cyanogen	460-19-5	No data			No data	No data		
Cyclohexane	110-82-7	No data			No data	6.00E+00		6.00E+00
Cyclohexanone	108-94-1	No data			No data	No data		
Cyclohexene	110-83-8	No data			No data	No data		
Cyclopentane	287-92-3	No data			No data	No data		

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Ethyl alcohol	64-17-5	No data			No data	No data		
Ethyl ether	60-29-7	No data			No data	No data		
Ethyl methacrylate	97-63-2	No data			No data	No data		
Formaldehyde	50-00-0	No data			No data	No data		
Formamide	75-12-7	No data			No data	No data		
Formic acid	64-18-6	No data			No data	No data		
Formic acid, methyl ester	107-31-3	No data			No data	No data		
Glycidylaldehyde	765-34-4	No data			No data	No data		
Methyl acetate	79-20-9	No data			No data	No data		
Methyl alcohol	67-56-1	No data			No data	No data		
Methyl isocyanate	624-83-9	No data			No data	No data		
Methyl methacrylate	80-62-6	No data			No data	No data		
Methyl tert-butyl ether	1634-04-4	No data			No data	No data		
Methylacetylene	74-99-7	No data			No data	No data		
Methylcyclohexane	108-87-2	No data			No data	No data		
N,N-Dimethylacetamide	127-19-5	No data			No data	No data		
n-Butyl alcohol	71-36-3	No data			No data	No data		
n-Heptane	142-82-5	No data			No data	No data		
n-Hexane	110-54-3	No data			No data	No data		
Nitromethane	75-52-5	No data			No data	No data		
n-Nonane	111-84-2	No data			No data	No data		
n-Octane	111-65-9	No data			No data	No data		
n-Pentane	109-66-0	No data			No data	No data		
n-Propionaldehyde	123-38-6	No data			No data	No data		
n-Propyl alcohol	71-23-8	No data			No data	No data		
n-Valeraldehyde	110-62-3	No data			No data	No data		
Oxirane	75-21-8	No data			No data	No data		
p-Cymene	99-87-6	No data			No data	7.00E+00	f	7.00E+00
Phosgene	75-44-5	No data			No data	No data		
Propargyl alcohol	107-19-7	No data			No data	No data		
Propionic acid	79-09-4	No data			No data	No data		

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Propionitrile	107-12-0	No data			No data	No data		
Propylene gylcol monomethyl ether	107-98-2	No data			No data	No data		
p-tert-Butyltoluene	98-51-1	No data			No data	7.00E+00	f	7.00E+00
Triethylamine	121-44-8	No data			No data	No data		
Trimethylamine	75-50-3	No data			No data	No data		
Vinyl acetate	108-05-4	No data			No data	No data		
Non-aromatic Halogenated Hydrocarbons								
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data			No data	5.00E+00	h	5.00E+00
1,1,1,2-Tetrachloroethane	630-20-6	No data			No data	5.00E+00	h	5.00E+00
1,1,1-Trichloroethane	71-55-6	No data			No data	5.00E+00	h	5.00E+00
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No data			No data	5.00E+00	h	5.00E+00
1,1,2,2-Tetrachloroethane	79-34-5	No data			No data	5.00E+00	h	5.00E+00
1,1,2,2-Tetrachloroethene	127-18-4	No data			No data	5.00E+00	h	5.00E+00
1,1,2-Trichloroethane	79-00-5	No data			No data	5.00E+00	h	5.00E+00
1,1,2-Trichloroethylene	79-01-6	No data			No data	5.00E+00	h	5.00E+00
1,1-Dichloroethane	75-34-3	No data			No data	5.00E+00	h	5.00E+00
1,1-Dichloroethene	75-35-4	No data			No data	5.00E+00	h	5.00E+00
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No data			No data	5.00E+00	h	5.00E+00
1,2,3-Trichloropropane	96-18-4	No data			No data	5.00E+00	h	5.00E+00
1,2-Dibromo-3-chloropropane	96-12-8	No data			No data	5.00E+00	h	5.00E+00
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No data			No data	5.00E+00	h	5.00E+00
1,2-Dichloroethane	107-06-2	No data			No data	5.00E+00	h	5.00E+00
1,2-Dichloroethylene	540-59-0	No data			No data	5.00E+00	h	5.00E+00
1,2-Dichloropropane	78-87-5	No data			7.00E+02	5.00E+00	h	7.00E+02
1,3-Dichloropropene	542-75-6	No data			No data	5.00E+00	h	5.00E+00
1,4-Dichloro-2-butene	764-41-0	No data			No data	5.00E+00	h	5.00E+00
1-Chloroethene	75-01-4	No data			No data	5.00E+00	h	5.00E+00
2,2-Dichloropropionic acid	75-99-0	No data			No data	5.00E+00	h	5.00E+00
2-Chloropropane	75-29-6	No data			No data	5.00E+00	h	5.00E+00
3-Chloropropene (allyl chloride)	107-05-1	No data			No data	5.00E+00	h	5.00E+00
Bromochloromethane	74-97-5	No data			No data	5.00E+00	h	5.00E+00

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Bromodichloromethane	75-27-4	No data			No data	5.00E+00	h	5.00E+00
Bromoethene	593-60-2	No data			No data	No		
Bromoform	75-25-2	No data			No data	No		
Bromomethane	74-83-9	No data			No data	No		
Carbon tetrachloride	56-23-5	No data			No data	5.00E+00	h	5.00E+00
Chlorodibromomethane	124-48-1	No data			No data	5.00E+00	h	5.00E+00
Chlorodifluoromethane	75-45-6	No data			No data	5.00E+00	h	5.00E+00
Chloroethane	75-00-3	No data			No data	5.00E+00	h	5.00E+00
Chloroform	67-66-3	No data			No data	5.00E+00	h	5.00E+00
Chloromethane	74-87-3	No data			No data	5.00E+00	h	5.00E+00
Chloropentafluoroethane	76-15-3	No data			No data	5.00E+00	h	5.00E+00
cis-1,2-Dichloroethene	156-59-2	No data			No data	5.00E+00	h	5.00E+00
cis-1,3-Dichloropropene	10061-01-5	No data			No data	5.00E+00	h	5.00E+00
Cyanogen bromide	506-68-3	No data			No data	No		
Cyanogen chloride	506-77-4	No data			No data	5.00E+00	h	5.00E+00
Dichlorodifluoromethane	75-71-8	No data			No data	5.00E+00	h	5.00E+00
Dichlorofluoromethane	75-43-4	No data			No data	5.00E+00	h	5.00E+00
Dichloromethane	75-09-2	No data			No data	5.00E+00	h	5.00E+00
Difluorodibromomethane	75-61-6	No data			No data	No		
Hexafluoroacetone	684-16-2	No data			No data	No		
Iodomethane	74-88-4	No data			No data	No		
Methylene bromide	74-95-3	No data			No data	No		
Pentachloroethane	76-01-7	No data			No data	5.00E+00	h	5.00E+00
trans-1,2-Dichloroethene	156-60-5	No data			No data	5.00E+00	h	5.00E+00
trans-1,3-Dichloropropene	10061-02-6	No data			No data	5.00E+00	h	5.00E+00
Trichloroacetic acid	76-03-9	No data			No data	5.00E+00	h	5.00E+00
Trichlorofluoroethane	27154-33-2	No data			No data	5.00E+00	h	5.00E+00
Trichlorofluoromethane	75-69-4	No data			No data	5.00E+00	h	5.00E+00
Trifluorobromomethane	75-63-8	No data			No data	No		
Dioxin and Furan Compounds								
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	No data			No data	8.00E+00	i	8.00E+00

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No data			No data	8.00E+00	i	8.00E+00
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No data			No data	8.00E+00	i	8.00E+00
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	No data			No data	8.00E+00	i	8.00E+00
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No data			No data	8.00E+00	i	8.00E+00
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	No data			No data	8.00E+00	i	8.00E+00
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No data			No data	8.00E+00	i	8.00E+00
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	No data			No data	8.00E+00	i	8.00E+00
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No data			No data	8.00E+00	i	8.00E+00
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	No data			No data	8.00E+00	i	8.00E+00
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No data			No data	8.00E+00	i	8.00E+00
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No data			No data	8.00E+00	i	8.00E+00
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No data			No data	8.00E+00	i	8.00E+00
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	5.00E-01			No data	8.00E+00	i	5.00E-01
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No data			No data	8.00E+00	i	8.00E+00
Dibenzofuran	132-64-9	No data			No data	8.00E+00	i	8.00E+00
Octachlorodibenzo(p)dioxin	3268-87-9	No data			No data	8.00E+00	i	8.00E+00
Octachlorodibenzofuran	39001-02-0	No data			No data	8.00E+00	i	8.00E+00
PCBs								
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No data			No data	1.00E+00	j	1.00E+00
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No data			No data	1.00E+00	j	1.00E+00
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data			No data	1.00E+00	j	1.00E+00
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data			No data	1.00E+00	j	1.00E+00
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data			No data	1.00E+00	j	1.00E+00
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data			No data	1.00E+00	j	1.00E+00
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data			No data	1.00E+00	j	1.00E+00
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data			No data	1.00E+00	j	1.00E+00
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No data			No data	1.00E+00	j	1.00E+00
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data			No data	1.00E+00	j	1.00E+00
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data			No data	1.00E+00	j	1.00E+00
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No data			No data	1.00E+00	j	1.00E+00
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data			No data	1.00E+00	j	1.00E+00

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data			No data	1.00E+00	j	1.00E+00
Polychlorinated biphenyls (PCBs)[k]	1336-36-3	2.51E+00			No data	1.00E+00	j	2.51E+00
Phthalates								
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	No data			No data	7.00E+00	f	7.00E+00
Butylbenzyl phthalate	85-68-7	No data			No data	7.00E+00	f	7.00E+00
Dibutyl phthalate	84-74-2	No data			No data	7.00E+00	f	7.00E+00
Diethyl phthalate	84-66-2	No data			No data	7.00E+00	f	7.00E+00
Dimethylphthalate	131-11-3	No data			2.00E+02	7.00E+00	f	2.00E+02
n-Dioctyl phthalate	117-84-0	No data			No data	7.00E+00	f	7.00E+00
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)								
2-Chloronapthalene	91-58-7	No data			No data	1.00E+00	l	1.00E+00
2-Methyl naphthalene	91-57-6	No data			No data	2.00E+01	m	2.00E+01
5-Nitroacenaphthene	602-87-9	No data			No data	2.00E+01	m	2.00E+01
Acenaphthene	83-32-9	No data			No data	2.00E+01	m	2.00E+01
Acenaphthylene	208-96-8	No data			No data	2.00E+01	m	2.00E+01
Anthracene	120-12-7	No data			No data	1.00E+01		1.00E+01
Fluorene	86-73-7	No data			3.00E+01	2.00E+01	m	3.00E+01
Indene	95-13-6	No data			No data	2.00E+01	m	2.00E+01
Naphthalene	91-20-3	No data			No data	5.00E+00		5.00E+00
Phenanthrene	85-01-8	No data			No data	5.00E+00		5.00E+00
Pyrene	129-00-0	No data			No data	1.00E+01		1.00E+01
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)								
3-Methylcholanthrene	56-49-5	2.50E+01	n		No data	2.00E+01	m	2.50E+01
5-Methylchrysene	3697-24-3	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Benzo(a)anthracene	56-55-3	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Benzo(a)pyrene	50-32-8	2.50E+01			No data	1.00E+00		2.50E+01
Benzo(b)fluoranthene	205-99-2	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Benzo(e)pyrene	192-97-2	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Benzo(g,h,i)perylene	191-24-2	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Benzo(j)fluoranthene	205-82-3	2.50E+01	n		No data	2.00E+01	m	2.50E+01

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Benzo(k)fluoranthene	207-08-9	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Benzo[a,i]pyrene	191-30-0	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Chrysene	218-01-9	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenz(a,h)anthracene	53-70-3	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenz[a,h]acridine	226-36-8	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenz[a,j]acridine	224-42-0	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenzo(a,e)fluoranthene	5385-75-1	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenzo(a,h)fluoranthene	no cas #	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenzo[a,e]pyrene	192-65-4	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenzo[a,h]pyrene	189-64-0	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Dibenzo[a,i]pyrene	189-55-9	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Fluoranthene	206-44-0	2.50E+01	n		No data	1.00E+01		2.50E+01
Hexachloronaphthalene	1335-87-1	2.50E+01	n		No data	1.00E+00	l	2.50E+01
Indeno(1,2,3-cd)pyrene	193-39-5	2.50E+01	n		No data	2.00E+01	m	2.50E+01
Octachloronaphthalene	2234-13-1	2.50E+01	n		No data	1.00E+00	l	2.50E+01
Pentachloronaphthalene	1321-64-8	2.50E+01	n		No data	1.00E+00	l	2.50E+01
Tetrachloronaphthalene	1335-88-2	2.50E+01	n		No data	1.00E+00	l	2.50E+01
Trichloronaphthalene	1321-65-9	2.50E+01	n		No data	1.00E+00	l	2.50E+01
Light Substituted Benzene Compounds (MW <200 g/mole)								
1,2,3-Trichlorobenzene	87-61-6	No data			2.00E+01	1.00E+00	o	2.00E+01
1,2,4-Trichlorobenzene	120-82-1	No data			2.00E+01	1.00E+00	o	2.00E+01
1,2,4-Trimethyl benzene	95-63-6	No data			No data	7.00E+00	f	7.00E+00
1,2-Dichlorobenzene	95-50-1	No data			No data	1.00E+00	o	1.00E+00
1,3,5-Trimethyl benzene	108-67-8	No data			No data	7.00E+00	f	7.00E+00
1,3-Dichlorobenzene	541-73-1	No data			No data	1.00E+00	o	1.00E+00
1,3-Dinitrobenzene	99-65-0	2.26E+00	p		No data	7.00E+00	f	2.26E+00
1,4-Dichlorobenzene	106-46-7	No data			2.00E+01	1.00E+00	o	2.00E+01
1,4-Dinitrobenzene	100-25-4	No data			No data	7.00E+00	f	7.00E+00
2,4,5-Trichlorophenol	95-95-4	No data			9.00E+00	5.00E-01	e	9.00E+00
2,4,6-Trichlorophenol	88-06-2	No data			1.00E+01	5.00E-01	e	1.00E+01
2,4-Dichlorophenol	120-83-2	No data			No data	5.00E-01	e	5.00E-01

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
2,4-Dimethylphenol	105-67-9	No data			No data	1.00E+00	q	1.00E+00
2,4-Dinitrophenol	51-28-5	No data			No data	1.00E+00	q	1.00E+00
2,4-Dinitrotoluene	121-14-2	No data			No data	7.00E+00	f	7.00E+00
2,6-Dinitrotoluene	606-20-2	No data			No data	7.00E+00	f	7.00E+00
2-Chlorophenol	95-57-8	No data			No data	5.00E-01	e	5.00E-01
2-Chlorotoluene	95-49-8	No data			No data	7.00E+00	f	7.00E+00
2-Nitrophenol	88-75-5	No data			No data	1.00E+00	q	1.00E+00
4,6-Dinitro-o-cresol	534-52-1	No data			No data	1.00E+00	q	1.00E+00
4-Chlorotoluene	106-43-4	No data			No data	7.00E+00	f	7.00E+00
4-Nitrophenol	100-02-7	No data			7.00E+00	1.00E+00	q	7.00E+00
alpha-Methylstyrene	98-83-9	No data			No data	7.00E+00	f	7.00E+00
Aniline	62-53-3	No data			No data	7.00E+00	f	7.00E+00
Benzotrichloride	98-07-7	No data			No data	1.00E+00	o	1.00E+00
Benzyl chloride	100-44-7	No data			No data	8.00E+00	i	8.00E+00
Bromobenzene	108-86-1	No data			No data	8.00E+00	i	8.00E+00
Chlorobenzene	108-90-7	No data			4.00E+01	1.00E+00		4.00E+01
Cumene	98-82-8	No data			No data	7.00E+00	f	7.00E+00
m-Cresol	108-39-4	No data			No data	1.00E+00	q	1.00E+00
n-Butyl benzene	104-51-8	No data			No data	7.00E+00	f	7.00E+00
Nitrobenzene	98-95-3	2.26E+00			4.00E+01	7.00E+00	f	2.26E+00
n-Propyl benzene	103-65-1	No data			No data	7.00E+00	f	7.00E+00
o-Cresol	95-48-7	No data			No data	1.00E+00	r	1.00E+00
o-Dinitrobenzene	528-29-0	No data			No data	7.00E+00	f	7.00E+00
o-Nitroaniline	88-74-4	No data			No data	7.00E+00	f	7.00E+00
o-Toluidine	95-53-4	No data			No data	7.00E+00	f	7.00E+00
p-Chloroaniline	106-47-8	No data			No data	8.00E+00	i	8.00E+00
p-Cresol	106-44-5	No data			No data	1.00E+00	q	1.00E+00
Phenol	108-95-2	No data			3.00E+01	1.00E+00	q	3.00E+01
p-Nitrochlorobenzene	100-00-5	No data			No data	1.00E+00	o	1.00E+00
p-Toluidine	106-49-0	No data			No data	7.00E+00	f	7.00E+00
sec-Butyl benzene	135-98-8	No data			No data	7.00E+00	f	7.00E+00

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
tert-Butyl benzene	98-06-6	No data			No data	7.00E+00	f	7.00E+00
Toluene-2,6-diamine	823-40-5	No data			No data	7.00E+00	f	7.00E+00
Trimethyl benzene	25551-13-7	No data			No data	7.00E+00	f	7.00E+00
Other Light Semivolatile Compounds (molecular weight <200 g/mole)								
1,1'-Biphenyl	92-52-4	No data			No data	No data		
1,1-Dimethylhydrazine	57-14-7	No data			No data	No data		
1,2-Dimethylhydrazine	540-73-8	No data			No data	No data		
1,2-Diphenylhydrazine	122-66-7	No data			No data	No data		
1,3-Propane sultone	1120-71-4	No data			No data	No data		
2,4-Toluene diisocyante	584-84-9	No data			No data	No data		
2-Chloroacetophenone	532-27-4	No data			No data	8.00E+00	i	8.00E+00
2-Propenoic acid	79-10-7	No data			No data	No data		
4,4-Methylenedianiline	101-77-9	No data			No data	No data		
Acetophenone	98-86-2	No data			No data	No data		
Benzoic acid	65-85-0	No data			No data	No data		
bis(2-Chloroethoxy)methane	111-91-1	No data			No data	5.00E+00	h	5.00E+00
bis(2-Chloroethyl) ether	111-44-4	No data			No data	5.00E+00	h	5.00E+00
Chlorocyclopentadiene	41851-50-7	No data			No data	5.00E+00	h	5.00E+00
Cyclohexanol	108-93-0	No data			No data	No data		
Dichloroisopropyl ether	108-60-1	No data			No data	5.00E+00	h	5.00E+00
Dichloromethyl ether	542-88-1	No data			No data	5.00E+00	h	5.00E+00
Dichloropentadiene	no cas #	No data			No data	5.00E+00	h	5.00E+00
Dimethyl sulfate	77-78-1	No data			No data	No data		
Dimethylaniline	121-69-7	No data			No data	No data		
Di-n-propylnitrosamine	621-64-7	No data			No data	No data		
Diphenyl ether	101-84-8	No data			No data	No data		
Epichlorohydrin	106-89-8	No data			No data	5.00E+00	h	5.00E+00
Ethyl carbamate (urethane)	51-79-6	No data			No data	No data		
Ethyl methanesulfonate	62-50-0	No data			No data	No data		
Ethylene dibromide	106-93-4	No data			No data	No data		
Ethylene glycol	107-21-1	No data			No data	No data		

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Ethylene glycol monobutyl ether	111-76-2	No data			No data	No data		
Ethylene glycol monoethyl ether acetate	111-15-9	No data			No data	No data		
Ethylene thiourea	96-45-7	No data			No data	No data		
Furfural	98-01-1	No data			No data	No data		
Maleic hydrazide	123-33-1	No data			No data	No data		
Malononitrile	109-77-3	No data			No data	No data		
Methyl styrene (mixed isomers)	25013-15-4	No data			No data	7.00E+00	f	7.00E+00
Methylhydrazine	60-34-4	No data			No data	No data		
N,N-Diphenylamine	122-39-4	No data			No data	No data		
Nitric acid, propyl ester	627-13-4	No data			No data	No data		
N-Nitrosodi-n-butylamine	924-16-3	No data			No data	No data		
N-Nitrosomorpholine	59-89-2	No data			No data	No data		
N-Nitroso-N,N-dimethylamine	62-75-9	No data			No data	No data		
o-Anisidine	90-04-0	No data			No data	No data		
Oxalic acid	144-62-7	No data			No data	No data		
Phthalic anhydride	85-44-9	No data			No data	No data		
p-Phthalic acid	100-21-0	No data			No data	No data		
Pyridine	110-86-1	No data			No data	2.00E+00		2.00E+00
Quinoline	91-22-5	No data			No data	No data		
Quinone	106-51-4	No data			No data	No data		
Safrole	94-59-7	No data			No data	No data		
Tetrahydrofuran	109-99-9	No data			No data	4.00E+00		4.00E+00
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)								
1,2,4,5-Tetrachlorobenzene	95-94-3	No data			No data	No data		
1,3,5-Trinitrobenzene	99-35-4	No data			No data	No data		
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No data			No data	1.00E+00	q	1.00E+00
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No data			No data	1.00E+00	q	1.00E+00
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No data			No data	1.00E+00	q	1.00E+00
3,3-Dichlorobenzidine	91-94-1	No data			No data	No data		
3,3'-Dimethoxybenzidine	119-90-4	No data			No data	No data		
4-Bromophenylphenyl ether	101-55-3	No data			No data	No data		

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Ammonium perfluorooctanoate	3825-26-1	No data			No data	No data		
Azobenzene	103-33-3	No data			No data	No data		
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data			No data	No data		
Captan	133-06-2	No data			No data	5.00E-01	r	5.00E-01
Chlorobenzilate	510-15-6	No data			No data	No data		
Dibutylphosphate	107-66-4	No data			No data	No data		
Dimethyl aminoazobenzene	60-11-7	No data			No data	No data		
Hexachlorobenzene	118-74-1	No data			No data	No data		
Hexachlorobutadiene	87-68-3	No data			No data	No data		
Hexachlorocyclopentadiene	77-47-4	No data			No data	No data		
Hexachloroethane	67-72-1	No data			No data	No data		
Hexachlorophene	70-30-4	No data			No data	No data		
Hexamethylene-1,5-diisocyanate	822-06-0	No data			No data	No data		
Mirex	2385-85-5	No data			No data	5.00E-01	r	5.00E-01
Nitrofen	1836-75-5	No data			No data	5.00E-01	r	5.00E-01
Pentachlorobenzene	608-93-5	1.15E+00			2.00E+01	No data		1.15E+00
Pentachloronitrobenzene	82-68-8	No data			No data	No data		
Pentachlorophenol	87-86-5	1.00E+01			6.00E+00	5.00E-01	e	1.00E+01
Picric acid	88-89-1	No data			No data	No data		
Pronamide	23950-58-5	No data			No data	5.00E-01	r	5.00E-01
Strychnine	57-24-9	No data			No data	No data		
Terphenyls	26140-60-3	No data			No data	No data		
Tributyl phosphate	126-73-8	No data			No data	No data		
Trifluralin	1582-09-8	No data			No data	No data		
Triphenylamine	603-34-9	No data			No data	No data		
Herbicides and Organochlorinated Pesticides								
2,4,5-T	93-76-5	No data			No data	5.00E-01	r	5.00E-01
2,4-D and esters	94-75-7	No data			No data	5.00E-01	r	5.00E-01
4,4-DDD	72-54-8	No data			No data	5.00E-01	r	5.00E-01
4,4-DDE	72-55-9	No data			No data	5.00E-01	r	5.00E-01
4,4-DDT	50-29-3	No data			No data	5.00E-01	r	5.00E-01

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Aldrin	309-00-2	No data			No data	5.00E-01	r	5.00E-01
alpha-BHC	319-84-6	No data			No data	5.00E-01	r	5.00E-01
beta-BHC	319-85-7	No data			No data	5.00E-01	r	5.00E-01
Chlordane	57-74-9	No data			No data	5.00E-01	r	5.00E-01
Delta-BHC	319-86-8	No data			No data	5.00E-01	r	5.00E-01
Dieldrin	60-57-1	No data			No data	5.00E-01	r	5.00E-01
Endothall	145-73-3	No data			No data	No		
Endrin	72-20-8	No data			No data	5.00E-01	r	5.00E-01
gamma-BHC (Lindane)	58-89-9	No data			No data	5.00E-01	r	5.00E-01
Heptachlor	76-44-8	No data			No data	5.00E-01	r	5.00E-01
Isodrin	465-73-6	No data			No data	5.00E-01	r	5.00E-01
Methoxychlor	72-43-5	No data			No data	5.00E-01	r	5.00E-01
Silvex (2,4,5-TP)	93-72-1	No data			No data	5.00E-01	r	5.00E-01
Toxaphene	8001-35-2	No data			No data	5.00E-01	r	5.00E-01
Inorganic Chemicals and Compounds								
Metals								
Aluminum	7429-90-5	No data			No data	No data		
Antimony	7440-36-0	No data			No data	No data		
Arsenic	7440-38-2	2.50E-01			6.00E+01	3.00E+01		2.50E-01
Barium	7440-39-3	No data			No data	4.00E+02		4.00E+02
Beryllium	7440-41-7	No data			No data	No data		
Bismuth	7440-69-9	No data			No data	No data		
Boron	7440-42-8	No data			No data	No data		
Cadmium	7440-43-9	1.00E+01			2.00E+01	5.00E+00		1.00E+01
Calcium	7440-70-2	No data			No data	No data		
Chromium (and VI)	18540-29-9	2.00E-01			4.00E-01	2.50E+02		2.00E-01
Cobalt	7440-48-4	No data			No data	5.00E+01		5.00E+01
Copper	7440-50-8	3.20E+01			5.00E+01	1.00E+02		3.20E+01
Iron	7439-89-6	No data			No data	No data		
Lead	7439-92-1	1.00E+02			5.00E+02	1.50E+02		1.00E+02

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Lithium	7439-93-2	No data			No data	No data		
Magnesium	7439-95-4	No data			No data	No data		
Manganese	7439-96-5	No data			No data	No data		
Mercury	7439-97-6	2.50E+00			1.00E-01	2.00E+00		2.50E+00
Molybdenum	7439-98-7	No data			No data	4.00E+01		4.00E+01
Nickel	7440-02-0	1.00E+02			2.00E+02	1.00E+02		1.00E+02
Potassium	7440-09-7	No data			No data	No data		
Rhodium	7440-16-6	No data			No data	No data		
Selenium	7782-49-2	7.70E+00			7.00E+01	No data		7.70E+00
Silicon	7440-21-3	No data			No data	No data		
Silver	7440-22-4	No data			No data	No data		
Sodium	7440-23-5	No data			No data	No data		
Strontium	7440-24-6	No data			No data	No data		
Tantalum	7440-25-7	No data			No data	No data		
Thallium	7440-28-0	No data			No data	No data		
Tin	7440-31-5	No data			No data	5.00E+01		5.00E+01
Tungsten	7440-33-7	No data			No data	No data		
Uranium	7440-61-1	No data			No data	No data		
Vanadium	7440-62-2	No data			No data	No data		
Yttrium	7440-65-5	No data			No data	No data		
Zinc	7440-66-6	1.99E+02			2.00E+02	5.00E+02		1.99E+02
Zirconium	7440-67-7	No data			No data	No data		
Non-metals and Anions								
Ammonia/Ammonium	7664-41-7	No data			No data	No data		
Bromide	24959-67-9	No data			No data	5.00E+01		5.00E+01
Chloride	16887-00-6	No data			No data	No data		
Cyanide	57-12-5	No data			No data	1.00E+01		1.00E+01
Fluoride	16984-48-8	No data			No data	4.00E+02		4.00E+02
Hydroxide	14280-30-9	No data			No data	No data		
Iodine	7553-56-2	No data			No data	No data		
Nitrate	14797-55-8	No data			No data	No data		

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Nitrite	14797-65-0	No data			No data	No data		
Phosphate	14265-44-2	No data			No data	No data		
Phosphorus	7723-14-0	No data			No data	No data		
Sulfate	14808-79-8	No data			No data	No data		
Total Sulfur	63705-05-5	No data			No data	2.00E+01		2.00E+01
Priority Pollutants								
Carbon Dioxide	124-38-9	No data			No data	No data		
Nitrogen Dioxide	10102-44-0	No data			No data	No data		
Ozone	10028-15-6	No data			No data	No data		
Particulate Matter	No CAS #	No data			No data	No data		
Sulfur Dioxode	7446-09-5	No data			No data	No data		
Radionuclides[s]								
Actinium-227	14952-40-0	NA			NA	NA		NA
Americium-241	1596-10-2	NA			NA	NA		NA
Americium-243	14993-75-0	NA			NA	NA		NA
Antimony-125	14234-35-6	NA			NA	NA		NA
Barium-137	13981-97-0	NA			NA	NA		NA
Cadmium-113	None	NA			NA	NA		NA
Carbon-14	14762-75-5	NA			NA	NA		NA
Cesium-134	13967-70-9	NA			NA	NA		NA
Cesium-137	10045-97-3	NA			NA	NA		NA
Cobalt-60	10198-40-0	NA			NA	NA		NA
Curium-242	15510-73-3	NA			NA	NA		NA
Curium-243	15757-87-6	NA			NA	NA		NA
Curium-244	13981-15-2	NA			NA	NA		NA
Europium-152	14683-23-9	NA			NA	NA		NA
Europium-154	15585-10-1	NA			NA	NA		NA
Europium-155	14391-16-3	NA			NA	NA		NA
Iodine-129	15046-84-1	NA			NA	NA		NA
Neptunium-237	13994-20-2	NA			NA	NA		NA

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)
Nickel-59	14336-70-0	NA			NA	NA		NA
Nickel-63	13981-37-8	NA			NA	NA		NA
Niobium-93	7440-03-1	NA			NA	NA		NA
Plutonium-238	13981-16-3	NA			NA	NA		NA
Plutonium-239	15117-48-3	NA			NA	NA		NA
Plutonium-240	14119-33-6	NA			NA	NA		NA
Plutonium-241	14119-32-5	NA			NA	NA		NA
Plutonium-242	13982-10-0	NA			NA	NA		NA
Protactinium-231	14331-85-2	NA			NA	NA		NA
Radium-226	13982-63-3	NA			NA	NA		NA
Radium-228	15262-20-1	NA			NA	NA		NA
Ruthenium-106	13967-48-1	NA			NA	NA		NA
Samarium-151	15715-94-3	NA			NA	NA		NA
Selenium-79	None	NA			NA	NA		NA
Strontium-90	10098-97-2	NA			NA	NA		NA
Technetium-99	14133-79-7	NA			NA	NA		NA
Thorium-229	15594-54-4	NA			NA	NA		NA
Thorium-232	7440-29-1	NA			NA	NA		NA
Tin-126	15832-50-5	NA			NA	NA		NA
Tritium	10028-17-8	NA			NA	NA		NA
Uranium-232	14158-29-3	NA			NA	NA		NA
Uranium-233	13968-55-3	NA			NA	NA		NA
Uranium-234	13966-29-5	NA			NA	NA		NA
Uranium-235	15117-96-1	NA			NA	NA		NA
Uranium-236	13982-70-2	NA			NA	NA		NA
Uranium-238	7440-61-1	NA			NA	NA		NA
Yttrium-90	10098-91-6	NA			NA	NA		NA
Zirconium-93	15751-77-6	NA			NA	NA		NA

NA = Not applicable

[a] Published in Appendix E of EPA (1999), Table E-6

Table C3-2 Toxicity Reference Values (TRVs) for Soil Invertebrates

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg)	Notes	Ecology Guidance TRV (mg/kg)	Efroymson et al. 1997b[b] (mg/kg)	Dutch Soil Cleanup Interim Act[c] (mg/kg)	Notes	Recommended TRV[d] (mg/kg)

[b] Published in Table 1 of Efroymson et al. 1997b

[c] Column B values (moderate soil contamination that requires additional study) published in Table 1 of Beyer 1990. Note that this is a guidance level for soil cleanup, not a toxicity level specifically for soil invertebrates.

[d] Selection criteria: the order of preferrence is EPA (1999), Efroymson et al. (1997c), and Dutch Interim Act values

[e] Value for chlorophenols (each)

[f] Value for total monocyclic aromatic hydrocarbons

[g] Value for xylene (total)

[h] Value for aliphatic chlorinated hydrocarbons (each)

[i] Value for total chlorinated hydrocarbons

[j] Value for total PCBs

[k] Value for Aroclor 1254 in Appendix E of EPA (1999), Table E-6, was used for PCB mixtures

[l] Value for polyclic chlorinated hydrocarbons (total)

[m] Value for total polycyclic aromatic hydrocarbons

[n] Value for high-molecular-weight polynuclear aromatic hydrocarbons from Appendix E of EPA (1999), Table E-6

[o] Value for chlorobenzenes (each)

[p] Nitrobenzene value from Appendix E of EPA (1999), Table E-6, was used as a surrogate value.

[q] Value for phenols (excluding chlorophenols)

[r] Value for oganochlorinated pesticides (each)

[s] TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for earthworms from all radionuclides combined cannot exceed 1 rad/d.

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Organics											
Aromatic Halogenated Hydrocarbons											
2,3,4,6-Tetrachlorophenol	58-90-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Chloro-3-methylphenol	59-50-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Aromatic Nonhalogenated Hydrocarbons											
2-Nitrotoluene	88-72-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Nitrobiphenyl	92-93-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzaldehyde	100-52-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzene	71-43-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzyl alcohol	100-51-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethyl benzene	100-41-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
m-Xylene	108-38-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
o-Xylene	95-47-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Xylene	106-42-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Styrene	100-42-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Toluene	108-88-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Non-aromatic Nonhalogenated Hydrocarbons											
1,2-Epoxybutane	106-88-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,3-Butadiene	106-99-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,4-Dioxane	123-91-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1-Methylpropyl alcohol	78-92-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1-Nitropropane	108-03-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,2,4-Trimethylpentane	540-84-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Butanone	78-93-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Butenaldehyde (2-Butenal)	4170-30-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Ethoxyethanol	110-80-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Heptanone	110-43-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Hexanone	591-78-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Methoxyethanol	109-86-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
2-Methyl-2-propanol	75-65-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Methyl-2-propenenitrile	126-98-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Methylaziridine	75-55-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Methylpropyl alcohol	78-83-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Pentanone	107-87-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Propanone (Acetone)	67-64-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Propene-1-ol	107-18-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Propyl alcohol	67-63-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3-Heptanone	106-35-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3-Methyl-1-butanol	123-51-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3-Methyl-2-butanone	563-80-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3-Pentanone	96-22-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Heptanone	123-19-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Methyl-2-pentanone	108-10-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Methyl-3-penten-2-one	141-79-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
5-Methyl-2-hexanone	110-12-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetaldehyde	75-07-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetamide	60-35-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetic acid	64-19-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetic acid ethyl ester	141-78-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetic acid n-butyl ester	123-86-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetonitrile	75-05-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acrolein	107-02-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acrylonitrile	107-13-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bis(isopropyl)ether	108-20-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Butane	106-97-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Carbon disulfide	75-15-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyanogen	460-19-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyclohexane	110-82-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Cyclohexanone	108-94-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyclohexene	110-83-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyclopentane	287-92-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethyl alcohol	64-17-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethyl ether	60-29-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethyl methacrylate	97-63-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Formaldehyde	50-00-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Formamide	75-12-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Formic acid	64-18-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Formic acid, methyl ester	107-31-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Glycidylaldehyde	765-34-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methyl acetate	79-20-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methyl alcohol	67-56-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methyl isocyanate	624-83-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methyl methacrylate	80-62-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methyl tert-butyl ether	1634-04-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methylacetylene	74-99-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methylcyclohexane	108-87-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
N,N-Dimethylacetamide	127-19-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Butyl alcohol	71-36-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Heptane	142-82-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Hexane	110-54-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitromethane	75-52-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Nonane	111-84-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Octane	111-65-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Pentane	109-66-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Propionaldehyde	123-38-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Propyl alcohol	71-23-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Valeraldehyde	110-62-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Oxirane	75-21-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Cymene	99-87-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Phosgene	75-44-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Propargyl alcohol	107-19-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Propionic acid	79-09-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Propionitrile	107-12-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Propylene gylcol monomethyl ether	107-98-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-tert-Butyltoluene	98-51-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Triethylamine	121-44-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trimethylamine	75-50-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Vinyl acetate	108-05-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Non-aromatic Halogenated Hydrocarbons											
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,1,2-Tetrachloroethane	630-20-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,1-Trichloroethane	71-55-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,2,2-Tetrachloroethane	79-34-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,2,2-Tetrachloroethene	127-18-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,2-Trichloroethane	79-00-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1,2-Trichloroethylene	79-01-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1-Dichloroethane	75-34-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1-Dichloroethene	75-35-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3-Trichloropropane	96-18-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Dibromo-3-chloropropane	96-12-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Dichloroethane	107-06-2	Chicken	1.60E+00	1.72E+01	chronic	NOAEL	Reproduction	Alumot et al. (1976b) in [1]	1.00E+00	1.00E+00	1.72E+01
1,2-Dichloroethylene	540-59-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Dichloropropane	78-87-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
1,3-Dichloropropene	542-75-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,4-Dichloro-2-butene	764-41-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1-Chloroethene	75-01-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,2-Dichloropropionic acid	75-99-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Chloropropane	75-29-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3-Chloropropene (Allyl chloride)	107-05-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromochloromethane	74-97-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromodichloromethane	75-27-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromoethene	593-60-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromoform	75-25-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromomethane	74-83-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Carbon tetrachloride	56-23-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chlorodibromomethane	124-48-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chlorodifluoromethane	75-45-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chloroethane	75-00-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chloroform	67-66-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chloromethane	74-87-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chloropentafluoroethane	76-15-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
cis-1,2-Dichloroethene	156-59-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
cis-1,3-Dichloropropene	10061-01-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyanogen bromide	506-68-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyanogen chloride	506-77-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dichlorodifluoromethane	75-71-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dichlorofluoromethane	75-43-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dichloromethane	75-09-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Difluorodibromomethane	75-61-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexafluoroacetone	684-16-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Iodomethane	74-88-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methylene bromide	74-95-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Pentachloroethane	76-01-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
trans-1,2-Dichloroethylene	156-60-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
trans-1,3-Dichloropropene	10061-02-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trichloroacetic acid	76-03-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trichlorofluoroethane	27154-33-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trichlorofluoromethane	75-69-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trifluorobromomethane	75-63-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dioxin and Furan Compounds											
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Ring-necked Pheasant	1.00E+00	1.40E-05	chronic	NOAEL	Reproduction	Nosek et al. (1992) in [1]	1.00E+00	1.00E+00	1.40E-05
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	Chick (1 day old)	1.21E-01	1.00E-04	subchronic	LOAEL	Mortality	McKinney et al. (1976) in [1]	1.00E-01	1.00E-01	1.00E-06
Dibenzofuran	132-64-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Octachlorodibenzo(p)dioxin	3268-87-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Octachlorodibenzofuran	39001-02-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
PCBs											
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Polychlorinated biphenyls (PCBs)[a]	1336-36-3	Ring-necked pheasant	1.00E+00	1.80E+00	chronic	LOAEL	Reproduction	Dahlgren et al. (1972) in [1]	1.0	0.1	1.80E-01
Phthalates											
Bis(2-ethylhexyl)phthalate	117-81-7	Ringed dove	1.55E-01	1.10E+00	chronic	NOAEL	Reproduction	Peakall (1974) in [1]	1.00E+00	1.00E+00	1.10E+00
Butylbenzylphthalate	85-68-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Di-n-butylphthalate	84-74-2	Ringed dove	1.55E-01	1.11E+00	chronic	LOAEL	Reproduction	Peakall (1974) in [1]	1.00E+00	1.00E-01	1.11E-01
Diethylphthalate	84-66-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dimethylphthalate	131-11-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Dioctyl phthalate	117-84-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Light Polycyclic Aromatic Hydrocarbons											
2-Chloronapthalene	91-58-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Methylnaphthalene	91-57-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
5-Nitroacenaphthene	602-87-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acenaphthene	83-32-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acenaphthylene	208-96-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Anthracene	120-12-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Fluorene	86-73-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Indene	95-13-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Naphthalene	91-20-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Phenanthrene	85-01-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Pyrene	129-00-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Heavy Polycyclic Aromatic Hydrocarbons											
3-Methylcholanthrene	56-49-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
5-Methylchrysene	3697-24-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(a)anthracene	56-55-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(a)pyrene	50-32-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(b)fluoranthene	205-99-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(e)pyrene	192-97-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(g,h,i)perylene	191-24-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(j)fluoranthene	205-82-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo(k)fluoranthene	207-08-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzo[a,i]pyrene	191-30-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chrysene	218-01-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenzo(a,h)anthracene	53-70-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenz[a,h]acridine	226-36-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenz[a,j]acridine	224-42-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenzo(a,e)fluoranthene	5385-75-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenzo(a,h)fluoranthene	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenzo[a,e]pyrene	192-65-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenzo[a,h]pyrene	189-64-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibenzo[a,i]pyrene	189-55-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Fluoranthene	206-44-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexachloronaphthalene	1335-87-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Indeno(1,2,3-cd)pyrene	193-39-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Octachloronaphthalene	2234-13-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Pentachloronaphthalene	1321-64-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Tetrachloronaphthalene	1335-88-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trichloronaphthalene	1321-65-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Light Substituted Benzene Compounds											
1,2,3-Trichlorobenzene	87-61-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,4-Trichlorobenzene	120-82-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2,4-Trimethyl benzene	95-63-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Dichlorobenzene	95-50-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,3,5-Trimethyl benzene	108-67-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,3-Dichlorobenzene	541-73-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,3-Dinitrobenzene	99-65-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,4-Dichlorobenzene	106-46-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,4-Dinitrobenzene	100-25-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4,5-Trichlorophenol	95-95-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4,6-Trichlorophenol	88-06-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4-Dichlorophenol	120-83-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4-Dimethylphenol	105-67-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4-Dinitrophenol	51-28-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4-Dinitrotoluene	121-14-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,6-Dinitrotoluene	606-20-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Chlorophenol	95-57-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Chlorotoluene	95-49-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Nitrophenol	88-75-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4,6-Dinitro-o-cresol	534-52-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Chlorotoluene	106-43-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Nitrophenol	100-02-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
alpha-Methylstyrene	98-83-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Aniline	62-53-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Benzotrichloride	98-07-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzyl chloride	100-44-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromobenzene	108-86-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chlorobenzene	108-90-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cumene	98-82-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
m-Cresol	108-39-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Butyl benzene	104-51-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitrobenzene	98-95-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
n-Propyl benzene	103-65-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
o-Cresol	95-48-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
o-Dinitrobenzene	528-29-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
o-Nitroaniline	88-74-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
o-Toluidine	95-53-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Chloroaniline	106-47-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Cresol	106-44-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Phenol	108-95-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Nitrochlorobenzene	100-00-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Toluidine	106-49-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
sec-Butyl benzene	135-98-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
tert-Butyl benzene	98-06-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Toluene-2,6-diamine	823-40-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trimethyl benzene	25551-13-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Other Light Semivolatile Compounds											
1,1'-Biphenyl	92-52-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,1-Dimethylhydrazine	57-14-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Dimethylhydrazine	540-73-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,2-Diphenylhydrazine	122-66-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,3-Propane sultone	1120-71-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4-Toluene diisocyante	584-84-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
2-Chloroacetophenone	532-27-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Propenoic acid	79-10-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4,4-Methylenedianiline	101-77-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Acetophenone	98-86-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Benzoic acid	65-85-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bis(2-chloroethoxy)methane	111-91-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bis(2-chloroethyl) ether	111-44-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chlorocyclopentadiene	41851-50-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyclohexanol	108-93-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dichloroisopropyl ether	108-60-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dichloromethyl ether	542-88-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dichloropentadiene	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dimethyl sulfate	77-78-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dimethylaniline	121-69-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
di-n-Propylnitrosamine	621-64-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Diphenyl ether	101-84-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Epichlorohydrin	106-89-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethyl Carbamate (Urethane)	51-79-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethyl methanesulfonate	62-50-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethylene dibromide	106-93-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethylene glycol	107-21-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethylene glycol monobutyl ether	111-76-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethylene glycol monoethyl ether acetate	111-15-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ethylene thiourea	96-45-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Furfural	98-01-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Maleic hydrazide	123-33-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Malononitrile	109-77-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methyl styrene (mixed isomers)	25013-15-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methylhydrazine	60-34-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
N,N-Diphenylamine	122-39-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitric acid, propyl ester	627-13-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
N-Nitrosodi-n-butylamine	924-16-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
N-Nitrosomorpholine	59-89-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
N-Nitroso-N,N-dimethylamine	62-75-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
o-Anisidine	90-04-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Oxalic acid	144-62-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Phthalic anhydride	85-44-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
p-Phthalic acid	100-21-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Pyridine	110-86-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Quinoline	91-22-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Quinone	106-51-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Safrole	94-59-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Tetrahydrofuran	109-99-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Other Heavy Semivolatile Compounds											
1,2,4,5-Tetrachlorobenzene	95-94-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
1,3,5-Trinitrobenzene	99-35-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3,3-Dichlorobenzidine	91-94-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
3,3'-Dimethoxybenzidine	119-90-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4-Bromophenylphenyl ether	101-55-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ammonium perfluorooctanoate	3825-26-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Azobenzene	103-33-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chlorobenzilate	510-15-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dibutylphosphate	107-66-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dimethyl aminoazobenzene	60-11-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Hexachlorobenzene	118-74-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexachlorobutadiene	87-68-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexachlorocyclopentadiene	77-47-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexachloroethane	67-72-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexachlorophene	70-30-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Hexamethylene-1,5-diisocyanate	822-06-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Mirex	2385-85-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitrofen	1836-75-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Pentachlorobenzene	608-93-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Pentachloronitrobenzene	82-68-8	Chicken	1.50E+00	7.07E+00	35 weeks	NOAEL	Reproduction	Dunn et al. (1979) in [1]	1.00E+00	1.00E+00	7.07E+00
Pentachlorophenol	87-86-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Picric acid	88-89-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Pronamide	23950-58-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Strychnine	57-24-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Terphenyls	26140-60-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Tributyl phosphate	126-73-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Trifluralin	1582-09-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Triphenylamine	603-34-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Herbicides and Organochlorinated Pesticides											
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	93-76-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
2,4-D	94-75-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4,4'-DDD	72-54-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4,4'-DDE	72-55-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
4,4'-DDT	50-29-3	Brown pelican	3.50E+00	2.80E-02	chronic	LOAEL	Reproduction	Anderson et al. (1975) in [1]	1.00E+00	1.00E-01	2.80E-03
Aldrin	309-00-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
alpha-BHC	319-84-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
beta-BHC	319-85-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Captan	133-06-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Chlordane	57-74-9	Red-winged blackbird	6.40E-02	2.14E+00	chronic	NOAEL	Mortality	Stickel et al. (1983) in [1]	1.00E+00	1.00E+00	2.14E+00
delta-BHC	319-86-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Dieldrin	60-57-1	Barn owl	4.66E-01	7.70E-02	chronic	NOAEL	Reproduction	Mendenhall et al. (1983) in [1]	1.00E+00	1.00E+00	7.70E-02
Endothall	145-73-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Endrin	72-20-8	Mallard duck	1.15E+00	3.00E-01	chronic	NOAEL	Reproduction	Spann et al. (1986) in [1]	1.00E+00	1.00E+00	3.00E-01
gamma-BHC (Lindane)	58-89-9	Mallard Duck	1.00E+00	2.00E+00	chronic	NOAEL	Reproduction	Chakravarty et al. (1986) in [1]	1.00E+00	1.00E+00	2.00E+00
Heptachlor	76-44-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Isodrin	465-73-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Methoxychlor	72-43-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Silvex (2,4,5-TP)	93-72-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Toxaphene	8001-35-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Inorganics											
Metals											
Aluminum	7429-90-5	Ringed dove	1.55E-01	1.10E+02	chronic	NOAEL	Reproduction	Carriere et al. (1986) in [1]	1.00E+00	1.00E+00	1.10E+02
Antimony	7440-36-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Arsenic	7440-38-2	Mallard duck	1.00E+00	5.14E+00	chronic	NOAEL	Mortality	USFWS (1979) in [1]	1.00E+00	1.00E+00	5.14E+00
Barium	7440-39-3	Chick (14 day old)	1.21E-01	2.08E+02	subchronic	NOAEL	Mortality	Johnson et al. (1960) in [1]	1.00E-01	1.00E+00	2.08E+01
Beryllium	7440-41-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bismuth	7440-69-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Boron	7440-42-8	Mallard duck	1.00E+00	2.88E+01	chronic	NOAEL	Reproduction	Smith and Anders (1989) in [1]	1.00E+00	1.00E+00	2.88E+01
Cadmium	7440-43-9	Mallard duck	1.15E+00	1.45E+00	chronic	NOAEL	Reproduction	White and Finley (1978) in [1]	1.00E+00	1.00E+00	1.45E+00
Calcium	7440-70-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Chromium (and VI)	7440-47-3	Black duck	1.25E+00	1.00E+00	chronic	NOAEL	Reproduction	Haseltine et al. (unpubl.) in [1]	1.0	1.0	1.00E+00
Cobalt	7440-48-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Copper	7440-50-8	Chick (5 week old)	5.34E-01	4.70E+01	chronic	NOAEL	Mortality	Mehring et al. (1960) in [1]	1.00E+00	1.00E+00	4.70E+01
Iron	7439-89-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Lead	7439-92-1	Quail	1.50E-01	1.13E+00	chronic	NOAEL	Reproduction	Edens et al. (1976) in [1]	1.00E+00	1.00E+00	1.13E+00
Lithium	7439-93-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Magnesium	7439-95-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Manganese	7439-96-5	Quail	7.20E-02	9.77E+02	chronic	NOAEL	Growth	Laskey and Edens (1985) in [1]	1.00E+00	1.00E+00	9.77E+02
Mercury	7439-97-6	Quail	1.50E-01	4.50E-01	chronic	NOAEL	Reproduction	Hill and Schaffner (1976) in [1]	1.00E+00	1.00E+00	4.50E-01
Molybdenum	7439-98-7	Chicken	1.50E+00	3.53E+01	chronic	LOAEL	Reproduction	Lepore and Miller (1965) in [1]	1.00E+00	1.00E-01	3.53E+00
Nickel	7440-02-0	Mallard duckling	7.82E-01	7.74E+01	chronic	NOAEL	Growth	Cain and Pafford (1981) in [1]	1.00E+00	1.00E+00	7.74E+01
Potassium	7440-09-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Rhodium	7440-16-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Selenium	7782-49-2	Mallard duck	1.00E+00	5.00E-01	chronic	NOAEL	Reproduction	Heinz et al. (1989) in [1]	1.00E+00	1.00E+00	5.00E-01
Silicon	7440-21-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Silver	7440-22-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Sodium	7440-23-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Strontium	7440-24-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Tantalum	7440-25-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Thallium	7440-28-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Tin	7440-31-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Tungsten	7440-33-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Uranium	7440-61-1	Black duck	1.25E+00	1.60E+02	subchronic	NOAEL	Metabolic	Haseltine and Sileo (1983) in [1]	1.00E-01	1.00E+00	1.60E+01
Vanadium	7440-62-2	Mallard duck	1.17E+00	1.14E+01	chronic	NOAEL	Mortality	White and Dieter (1978) in [1]	1.00E+00	1.00E+00	1.14E+01
Yttrium	7440-65-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Zinc	7440-66-6	Leghorn chicken	1.94E+00	1.45E+01	chronic	NOAEL	Reproduction	Stahl et al. (1990) in [1]	1.00E+00	1.00E+00	1.45E+01
Zirconium	7440-67-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Non-metals and Ions											
Ammonia/Ammonium	7664-41-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Bromide	24959-67-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Chloride	16887-00-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Cyanide	57-12-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Fluoride	16984-48-8	Screech owl	1.81E-01	7.80E+00	chronic	NOAEL	Reproduction	Pattee et al. (1988) in [1]	1.00E+00	1.00E+00	7.80E+00
Hydroxide	14280-30-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Iodine	7553-56-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitrate	14797-55-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitrite	14797-65-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Phosphate	14265-44-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Phosphorus	7723-14-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Sulfate	14808-79-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Total Sulfur	63705-05-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Criteria Pollutants											
Carbon dioxide	124-38-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Nitrogen dioxide	10102-44-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Ozone	10028-15-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Particulate matter	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Sulfur dioxide	7446-09-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No TRV
Radionuclides	TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for birds from all radionuclides combined cannot exceed 0.1 rad/d.										

Table C3-3. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Bird Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF

TRV = toxicity reference value

DCF = Duration conversion factor; 1 if chronic, 0.1 if subchronic (Sample et al. 1996)

ECF = Endpoint conversion factor; 1 if NOAEL, 0.1 if LOAEL (Sample et al. 1996)

NOAEL = No observed adverse effect level

NA = No data available

[a] Data for Aroclor 1254 used as representative of PCB mixtures

LOAEL = Lowest observed adverse effect level

[1] = Sample et al. (1996)

[2] = Clayton and Clayton (1981)

[3] = IRIS (1996)

[4] = IRIS (1998)

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Organics						
Aromatic Halogenated Hydrocarbons						
2,3,4,6-Tetrachlorophenol	58-90-2	No TRV			No TRV	No TRV
4-Chloro-3-methylphenol	59-50-7	No TRV			No TRV	No TRV
Aromatic Nonhalogenated Hydrocarbons						
2-Nitrotoluene	88-72-2	No TRV			No TRV	No TRV
4-Nitrobiphenyl	92-93-3	No TRV			No TRV	No TRV
Benzaldehyde	100-52-7	No TRV			No TRV	No TRV
Benzene	71-43-2	No TRV			No TRV	No TRV
Benzyl alcohol	100-51-6	No TRV			No TRV	No TRV
Ethyl benzene	100-41-4	No TRV			No TRV	No TRV
m-Xylene	108-38-3	No TRV			No TRV	No TRV
o-Xylene	95-47-6	No TRV			No TRV	No TRV
p-Xylene	106-42-3	No TRV			No TRV	No TRV
Styrene	100-42-5	No TRV			No TRV	No TRV
Toluene	108-88-3	No TRV			No TRV	No TRV
Non-aromatic Nonhalogenated Hydrocarbons						
1,2-Epoxybutane	106-88-7	No TRV			No TRV	No TRV
1,3-Butadiene	106-99-0	No TRV			No TRV	No TRV
1,4-Dioxane	123-91-1	No TRV			No TRV	No TRV
1-Methylpropyl alcohol	78-92-2	No TRV			No TRV	No TRV
1-Nitropropane	108-03-2	No TRV			No TRV	No TRV
2,2,4-Trimethylpentane	540-84-1	No TRV			No TRV	No TRV
2-Butanone	78-93-3	No TRV			No TRV	No TRV
2-Butenaldehyde (2-Butenal)	4170-30-3	No TRV			No TRV	No TRV
2-Ethoxyethanol	110-80-5	No TRV			No TRV	No TRV
2-Heptanone	110-43-0	No TRV			No TRV	No TRV
2-Hexanone	591-78-6	No TRV			No TRV	No TRV
2-Methoxyethanol	109-86-4	No TRV			No TRV	No TRV
2-Methyl-2-propanol	75-65-0	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
2-Methyl-2-propenenitrile	126-98-7	No TRV			No TRV	No TRV
2-Methylaziridine	75-55-8	No TRV			No TRV	No TRV
2-Methylpropyl alcohol	78-83-1	No TRV			No TRV	No TRV
2-Pentanone	107-87-9	No TRV			No TRV	No TRV
2-Propanone (Acetone)	67-64-1	5.20E+01			No TRV	5.20E+01
2-Propene-1-ol	107-18-6	No TRV			No TRV	No TRV
2-Propyl alcohol	67-63-0	No TRV			No TRV	No TRV
3-Heptanone	106-35-4	No TRV			No TRV	No TRV
3-Methyl-1-butanol	123-51-3	No TRV			No TRV	No TRV
3-Methyl-2-butanone	563-80-4	No TRV			No TRV	No TRV
3-Pentanone	96-22-0	No TRV			No TRV	No TRV
4-Heptanone	123-19-3	No TRV			No TRV	No TRV
4-Methyl-2-pentanone	108-10-1	No TRV			No TRV	No TRV
4-Methyl-3-penten-2-one	141-79-7	No TRV			No TRV	No TRV
5-Methyl-2-hexanone	110-12-3	No TRV			No TRV	No TRV
Acetaldehyde	75-07-0	No TRV			No TRV	No TRV
Acetamide	60-35-5	No TRV			No TRV	No TRV
Acetic acid	64-19-7	No TRV			No TRV	No TRV
Acetic acid ethyl ester	141-78-6	No TRV			No TRV	No TRV
Acetic acid n-butyl ester	123-86-4	No TRV			No TRV	No TRV
Acetonitrile	75-05-8	No TRV			No TRV	No TRV
Acrolein	107-02-8	No TRV			No TRV	No TRV
Acrylonitrile	107-13-1	No TRV			No TRV	No TRV
Bis(isopropyl)ether	108-20-3	No TRV			No TRV	No TRV
Butane	106-97-8	No TRV			No TRV	No TRV
Carbon disulfide	75-15-0	No TRV			No TRV	No TRV
Cyanogen	460-19-5	No TRV			No TRV	No TRV
Cyclohexane	110-82-7	No TRV			No TRV	No TRV
Cyclohexanone	108-94-1	No TRV			No TRV	No TRV
Cyclohexene	110-83-8	No TRV			No TRV	No TRV
Cyclopentane	287-92-3	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Ethyl alcohol	64-17-5	No TRV			No TRV	No TRV
Ethyl ether	60-29-7	No TRV			No TRV	No TRV
Ethyl methacrylate	97-63-2	No TRV			No TRV	No TRV
Formaldehyde	50-00-0	No TRV			No TRV	No TRV
Formamide	75-12-7	No TRV			No TRV	No TRV
Formic acid	64-18-6	No TRV			No TRV	No TRV
Formic acid, methyl ester	107-31-3	No TRV			No TRV	No TRV
Glycidylaldehyde	765-34-4	No TRV			No TRV	No TRV
Methyl acetate	79-20-9	No TRV			No TRV	No TRV
Methyl alcohol	67-56-1	No TRV			No TRV	No TRV
Methyl isocyanate	624-83-9	No TRV			No TRV	No TRV
Methyl methacrylate	80-62-6	No TRV			No TRV	No TRV
Methyl tert-butyl ether	1634-04-4	No TRV			No TRV	No TRV
Methylacetylene	74-99-7	No TRV			No TRV	No TRV
Methylcyclohexane	108-87-2	No TRV			No TRV	No TRV
N,N-Dimethylacetamide	127-19-5	No TRV			No TRV	No TRV
n-Butyl alcohol	71-36-3	No TRV			No TRV	No TRV
n-Heptane	142-82-5	No TRV			No TRV	No TRV
n-Hexane	110-54-3	No TRV			No TRV	No TRV
Nitromethane	75-52-5	No TRV			No TRV	No TRV
n-Nonane	111-84-2	No TRV			No TRV	No TRV
n-Octane	111-65-9	No TRV			No TRV	No TRV
n-Pentane	109-66-0	No TRV			No TRV	No TRV
n-Propionaldehyde	123-38-6	No TRV			No TRV	No TRV
n-Propyl alcohol	71-23-8	No TRV			No TRV	No TRV
n-Valeraldehyde	110-62-3	No TRV			No TRV	No TRV
Oxirane	75-21-8	No TRV			No TRV	No TRV
p-Cymene	99-87-6	No TRV			No TRV	No TRV
Phosgene	75-44-5	No TRV			No TRV	No TRV
Propargyl alcohol	107-19-7	No TRV			No TRV	No TRV
Propionic acid	79-09-4	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Propionitrile	107-12-0	No TRV			No TRV	No TRV
Propylene gylcol monomethyl ether	107-98-2	No TRV			No TRV	No TRV
p-tert-Butyltoluene	98-51-1	No TRV			No TRV	No TRV
Triethylamine	121-44-8	No TRV			No TRV	No TRV
Trimethylamine	75-50-3	No TRV			No TRV	No TRV
Vinyl acetate	108-05-4	No TRV			No TRV	No TRV
Non-aromatic Halogenated Hydrocarbons						
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No TRV			No TRV	No TRV
1,1,1,2-Tetrachloroethane	630-20-6	No TRV			No TRV	No TRV
1,1,1-Trichloroethane	71-55-6	No TRV			No TRV	No TRV
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No TRV			No TRV	No TRV
1,1,2,2-Tetrachloroethane	79-34-5	No TRV			No TRV	No TRV
1,1,2,2-Tetrachloroethene	127-18-4	No TRV			No TRV	No TRV
1,1,2-Trichloroethane	79-00-5	No TRV			No TRV	No TRV
1,1,2-Trichloroethylene	79-01-6	No TRV			No TRV	No TRV
1,1-Dichloroethane	75-34-3	No TRV			No TRV	No TRV
1,1-Dichloroethene	75-35-4	No TRV			No TRV	No TRV
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No TRV			No TRV	No TRV
1,2,3-Trichloropropane	96-18-4	No TRV			No TRV	No TRV
1,2-Dibromo-3-chloropropane	96-12-8	No TRV			No TRV	No TRV
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No TRV			No TRV	No TRV
1,2-Dichloroethane	107-06-2	No TRV			1.72E+01	1.72E+01
1,2-Dichloroethylene	540-59-0	No TRV			No TRV	No TRV
1,2-Dichloropropane	78-87-5	No TRV			No TRV	No TRV
1,3-Dichloropropene	542-75-6	No TRV			No TRV	No TRV
1,4-Dichloro-2-butene	764-41-0	No TRV			No TRV	No TRV
1-Chloroethene	75-01-4	No TRV			No TRV	No TRV
2,2-Dichloropropionic acid	75-99-0	No TRV			No TRV	No TRV
2-Chloropropane	75-29-6	No TRV			No TRV	No TRV
3-Chloropropene (Allyl chloride)	107-05-1	No TRV			No TRV	No TRV
Bromochloromethane	74-97-5	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Bromodichloromethane	75-27-4	No TRV			No TRV	No TRV
Bromoethene	593-60-2	No TRV			No TRV	No TRV
Bromoform	75-25-2	No TRV			No TRV	No TRV
Bromomethane	74-83-9	No TRV			No TRV	No TRV
Carbon tetrachloride	56-23-5	No TRV			No TRV	No TRV
Chlorodibromomethane	124-48-1	No TRV			No TRV	No TRV
Chlorodifluoromethane	75-45-6	No TRV			No TRV	No TRV
Chloroethane	75-00-3	No TRV			No TRV	No TRV
Chloroform	67-66-3	No TRV			No TRV	No TRV
Chloromethane	74-87-3	No TRV			No TRV	No TRV
Chloropentafluoroethane	76-15-3	No TRV			No TRV	No TRV
cis-1,2-Dichloroethene	156-59-2	No TRV			No TRV	No TRV
cis-1,3-Dichloropropene	10061-01-5	No TRV			No TRV	No TRV
Cyanogen bromide	506-68-3	No TRV			No TRV	No TRV
Cyanogen chloride	506-77-4	No TRV			No TRV	No TRV
Dichlorodifluoromethane	75-71-8	No TRV			No TRV	No TRV
Dichlorofluoromethane	75-43-4	No TRV			No TRV	No TRV
Dichloromethane	75-09-2	No TRV			No TRV	No TRV
Difluorodibromomethane	75-61-6	No TRV			No TRV	No TRV
Hexafluoroacetone	684-16-2	No TRV			No TRV	No TRV
Iodomethane	74-88-4	No TRV			No TRV	No TRV
Methylene bromide	74-95-3	No TRV			No TRV	No TRV
Pentachloroethane	76-01-7	No TRV			No TRV	No TRV
trans-1,2-Dichloroethylene	156-60-5	No TRV			No TRV	No TRV
trans-1,3-Dichloropropene	10061-02-6	No TRV			No TRV	No TRV
Trichloroacetic acid	76-03-9	No TRV			No TRV	No TRV
Trichlorofluoroethane	27154-33-2	No TRV			No TRV	No TRV
Trichlorofluoromethane	75-69-4	No TRV			No TRV	No TRV
Trifluorobromomethane	75-63-8	No TRV			No TRV	No TRV
Dioxin and Furan Compounds						
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No TRV			No TRV	No TRV
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No TRV			No TRV	No TRV
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	No TRV			No TRV	No TRV
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No TRV			No TRV	No TRV
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	No TRV			No TRV	No TRV
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No TRV			No TRV	No TRV
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	No TRV			No TRV	No TRV
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No TRV			No TRV	No TRV
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	No TRV			No TRV	No TRV
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No TRV			No TRV	No TRV
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No TRV			No TRV	No TRV
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No TRV			No TRV	No TRV
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	1.00E-05			1.40E-05	1.00E-05
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No TRV			1.00E-06	1.00E-06
Dibenzofuran	132-64-9	No TRV			No TRV	No TRV
Octachlorodibenzo(p)dioxin	3268-87-9	No TRV			No TRV	No TRV
Octachlorodibenzofuran	39001-02-0	No TRV			No TRV	No TRV
PCBs						
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No TRV			No TRV	No TRV
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No TRV			No TRV	No TRV
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No TRV			No TRV	No TRV
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No TRV			No TRV	No TRV
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No TRV			No TRV	No TRV
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No TRV			No TRV	No TRV
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No TRV			No TRV	No TRV
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No TRV			No TRV	No TRV
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No TRV			No TRV	No TRV
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No TRV			No TRV	No TRV
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No TRV			No TRV	No TRV
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No TRV			No TRV	No TRV
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No TRV			No TRV	No TRV
Polychlorinated biphenyls (PCBs)[d]	1336-36-3	7.20E-02			1.80E-01	7.20E-02
Phthalates						
Bis(2-ethylhexyl)phthalate	117-81-7	1.11E-01			1.10E+00	1.11E-01
Butylbenzylphthalate	85-68-7	No TRV			No TRV	No TRV
Di-n-butylphthalate	84-74-2	No TRV			1.11E-01	1.11E-01
Diethylphthalate	84-66-2	No TRV			No TRV	No TRV
Dimethylphthalate	131-11-3	No TRV			No TRV	No TRV
n-Dioctyl phthalate	117-84-0	No TRV			No TRV	No TRV
Light Polycyclic Aromatic Hydrocarbons						
2-Chloronapthalene	91-58-7	No TRV			No TRV	No TRV
2-Methylnaphthalene	91-57-6	No TRV			No TRV	No TRV
5-Nitroacenaphthene	602-87-9	No TRV			No TRV	No TRV
Acenaphthene	83-32-9	No TRV			No TRV	No TRV
Acenaphthylene	208-96-8	No TRV			No TRV	No TRV
Anthracene	120-12-7	No TRV			No TRV	No TRV
Fluorene	86-73-7	No TRV			No TRV	No TRV
Indene	95-13-6	No TRV			No TRV	No TRV
Naphthalene	91-20-3	No TRV			No TRV	No TRV
Phenanthrene	85-01-8	No TRV			No TRV	No TRV
Pyrene	129-00-0	No TRV			No TRV	No TRV
Heavy Polycyclic Aromatic Hydrocarbons[e]						
3-Methylcholanthrene	56-49-5	No TRV			No TRV	No TRV
5-Methylchrysene	3697-24-3	No TRV			No TRV	No TRV
Benzo(a)anthracene	56-55-3	7.90E-04			No TRV	7.90E-04
Benzo(a)pyrene	50-32-8	1.00E-03			No TRV	1.00E-03
Benzo(b)fluoranthene	205-99-2	1.40E-04	f		No TRV	1.40E-04
Benzo(e)pyrene	192-97-2	No TRV			No TRV	No TRV
Benzo(g,h,i)perylene	191-24-2	No TRV			No TRV	No TRV
Benzo(j)fluoranthene	205-82-3	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Benzo(k)fluoranthene	207-08-9	1.40E-04			No TRV	1.40E-04
Benzo[a,i]pyrene	191-30-0	No TRV			No TRV	No TRV
Chrysene	218-01-9	1.00E-03			No TRV	1.00E-03
Dibenzo(a,h)anthracene	53-70-3	3.90E-04			No TRV	3.90E-04
Dibenz[a,h]acridine	226-36-8	No TRV			No TRV	No TRV
Dibenz[a,j]acridine	224-42-0	No TRV			No TRV	No TRV
Dibenzo(a,e)fluoranthene	5385-75-1	No TRV			No TRV	No TRV
Dibenzo(a,h)fluoranthene	no cas #	No TRV			No TRV	No TRV
Dibenzo[a,e]pyrene	192-65-4	No TRV			No TRV	No TRV
Dibenzo[a,h]pyrene	189-64-0	No TRV			No TRV	No TRV
Dibenzo[a,i]pyrene	189-55-9	No TRV			No TRV	No TRV
Fluoranthene	206-44-0	No TRV			No TRV	No TRV
Hexachloronaphthalene	1335-87-1	No TRV			No TRV	No TRV
Indeno(1,2,3-cd)pyrene	193-39-5	1.00E-03			No TRV	1.00E-03
Octachloronaphthalene	2234-13-1	No TRV			No TRV	No TRV
Pentachloronaphthalene	1321-64-8	No TRV			No TRV	No TRV
Tetrachloronaphthalene	1335-88-2	No TRV			No TRV	No TRV
Trichloronaphthalene	1321-65-9	No TRV			No TRV	No TRV
Light Substituted Benzene Compounds						
1,2,3-Trichlorobenzene	87-61-6	No TRV			No TRV	No TRV
1,2,4-Trichlorobenzene	120-82-1	No TRV			No TRV	No TRV
1,2,4-Trimethyl benzene	95-63-6	No TRV			No TRV	No TRV
1,2-Dichlorobenzene	95-50-1	No TRV			No TRV	No TRV
1,3,5-Trimethyl benzene	108-67-8	No TRV			No TRV	No TRV
1,3-Dichlorobenzene	541-73-1	No TRV			No TRV	No TRV
1,3-Dinitrobenzene	99-65-0	4.22E-04			No TRV	4.22E-04
1,4-Dichlorobenzene	106-46-7	No TRV			No TRV	No TRV
1,4-Dinitrobenzene	100-25-4	No TRV			No TRV	No TRV
2,4,5-Trichlorophenol	95-95-4	No TRV			No TRV	No TRV
2,4,6-Trichlorophenol	88-06-2	No TRV			No TRV	No TRV
2,4-Dichlorophenol	120-83-2	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
2,4-Dimethylphenol	105-67-9	No TRV			No TRV	No TRV
2,4-Dinitrophenol	51-28-5	No TRV			No TRV	No TRV
2,4-Dinitrotoluene	121-14-2	No TRV			No TRV	No TRV
2,6-Dinitrotoluene	606-20-2	No TRV			No TRV	No TRV
2-Chlorophenol	95-57-8	No TRV			No TRV	No TRV
2-Chlorotoluene	95-49-8	No TRV			No TRV	No TRV
2-Nitrophenol	88-75-5	No TRV			No TRV	No TRV
4,6-Dinitro-o-cresol	534-52-1	No TRV			No TRV	No TRV
4-Chlorotoluene	106-43-4	No TRV			No TRV	No TRV
4-Nitrophenol	100-02-7	No TRV			No TRV	No TRV
alpha-Methylstyrene	98-83-9	No TRV			No TRV	No TRV
Aniline	62-53-3	No TRV			No TRV	No TRV
Benzotrichloride	98-07-7	No TRV			No TRV	No TRV
Benzyl chloride	100-44-7	No TRV			No TRV	No TRV
Bromobenzene	108-86-1	No TRV			No TRV	No TRV
Chlorobenzene	108-90-7	No TRV			No TRV	No TRV
Cumene	98-82-8	No TRV			No TRV	No TRV
m-Cresol	108-39-4	No TRV			No TRV	No TRV
n-Butyl benzene	104-51-8	No TRV			No TRV	No TRV
Nitrobenzene	98-95-3	No TRV			No TRV	No TRV
n-Propyl benzene	103-65-1	No TRV			No TRV	No TRV
o-Cresol	95-48-7	No TRV			No TRV	No TRV
o-Dinitrobenzene	528-29-0	No TRV			No TRV	No TRV
o-Nitroaniline	88-74-4	No TRV			No TRV	No TRV
o-Toluidine	95-53-4	No TRV			No TRV	No TRV
p-Chloroaniline	106-47-8	No TRV			No TRV	No TRV
p-Cresol	106-44-5	No TRV			No TRV	No TRV
Phenol	108-95-2	No TRV			No TRV	No TRV
p-Nitrochlorobenzene	100-00-5	No TRV			No TRV	No TRV
p-Toluidine	106-49-0	No TRV			No TRV	No TRV
sec-Butyl benzene	135-98-8	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
tert-Butyl benzene	98-06-6	No TRV			No TRV	No TRV
Toluene-2,6-diamine	823-40-5	No TRV			No TRV	No TRV
Trimethyl benzene	25551-13-7	No TRV			No TRV	No TRV
Other Light Semivolatile Compounds						
1,1'-Biphenyl	92-52-4	No TRV			No TRV	No TRV
1,1-Dimethylhydrazine	57-14-7	No TRV			No TRV	No TRV
1,2-Dimethylhydrazine	540-73-8	No TRV			No TRV	No TRV
1,2-Diphenylhydrazine	122-66-7	No TRV			No TRV	No TRV
1,3-Propane sultone	1120-71-4	No TRV			No TRV	No TRV
2,4-Toluene diisocyante	584-84-9	No TRV			No TRV	No TRV
2-Chloroacetophenone	532-27-4	No TRV			No TRV	No TRV
2-Propenoic acid	79-10-7	No TRV			No TRV	No TRV
4,4-Methylenedianiline	101-77-9	No TRV			No TRV	No TRV
Acetophenone	98-86-2	No TRV			No TRV	No TRV
Benzoic acid	65-85-0	No TRV			No TRV	No TRV
Bis(2-chloroethoxy)methane	111-91-1	No TRV			No TRV	No TRV
Bis(2-chloroethyl) ether	111-44-4	No TRV			No TRV	No TRV
Chlorocyclopentadiene	41851-50-7	No TRV			No TRV	No TRV
Cyclohexanol	108-93-0	No TRV			No TRV	No TRV
Dichloroisopropyl ether	108-60-1	No TRV			No TRV	No TRV
Dichloromethyl ether	542-88-1	No TRV			No TRV	No TRV
Dichloropentadiene	no cas #	No TRV			No TRV	No TRV
Dimethyl sulfate	77-78-1	No TRV			No TRV	No TRV
Dimethylaniline	121-69-7	No TRV			No TRV	No TRV
di-n-Propylnitrosamine	621-64-7	No TRV			No TRV	No TRV
Diphenyl ether	101-84-8	No TRV			No TRV	No TRV
Epichlorohydrin	106-89-8	No TRV			No TRV	No TRV
Ethyl Carbamate (Urethane)	51-79-6	No TRV			No TRV	No TRV
Ethyl methanesulfonate	62-50-0	No TRV			No TRV	No TRV
Ethylene dibromide	106-93-4	No TRV			No TRV	No TRV
Ethylene glycol	107-21-1	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Ethylene glycol monobutyl ether	111-76-2	No TRV			No TRV	No TRV
Ethylene glycol monoethyl ether acetate	111-15-9	No TRV			No TRV	No TRV
Ethylene thiourea	96-45-7	No TRV			No TRV	No TRV
Furfural	98-01-1	No TRV			No TRV	No TRV
Maleic hydrazide	123-33-1	No TRV			No TRV	No TRV
Malononitrile	109-77-3	No TRV			No TRV	No TRV
Methyl styrene (mixed isomers)	25013-15-4	No TRV			No TRV	No TRV
Methylhydrazine	60-34-4	No TRV			No TRV	No TRV
N,N-Diphenylamine	122-39-4	No TRV			No TRV	No TRV
Nitric acid, propyl ester	627-13-4	No TRV			No TRV	No TRV
N-Nitrosodi-n-butylamine	924-16-3	No TRV			No TRV	No TRV
N-Nitrosomorpholine	59-89-2	No TRV			No TRV	No TRV
N-Nitroso-N,N-dimethylamine	62-75-9	No TRV			No TRV	No TRV
o-Anisidine	90-04-0	No TRV			No TRV	No TRV
Oxalic acid	144-62-7	No TRV			No TRV	No TRV
Phthalic anhydride	85-44-9	No TRV			No TRV	No TRV
p-Phthalic acid	100-21-0	No TRV			No TRV	No TRV
Pyridine	110-86-1	No TRV			No TRV	No TRV
Quinoline	91-22-5	No TRV			No TRV	No TRV
Quinone	106-51-4	No TRV			No TRV	No TRV
Safrole	94-59-7	No TRV			No TRV	No TRV
Tetrahydrofuran	109-99-9	No TRV			No TRV	No TRV
Other Heavy Semivolatile Compounds						
1,2,4,5-Tetrachlorobenzene	95-94-3	No TRV			No TRV	No TRV
1,3,5-Trinitrobenzene	99-35-4	No TRV			No TRV	No TRV
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No TRV			No TRV	No TRV
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No TRV			No TRV	No TRV
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No TRV			No TRV	No TRV
3,3-Dichlorobenzidine	91-94-1	No TRV			No TRV	No TRV
3,3'-Dimethoxybenzidine	119-90-4	No TRV			No TRV	No TRV
4-Bromophenylphenyl ether	101-55-3	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Ammonium perfluorooctanoate	3825-26-1	No TRV			No TRV	No TRV
Azobenzene	103-33-3	No TRV			No TRV	No TRV
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No TRV			No TRV	No TRV
Chlorobenzilate	510-15-6	No TRV			No TRV	No TRV
Dibutylphosphate	107-66-4	No TRV			No TRV	No TRV
Dimethyl aminoazobenzene	60-11-7	No TRV			No TRV	No TRV
Hexachlorobenzene	118-74-1	2.25E-01			No TRV	2.25E-01
Hexachlorobutadiene	87-68-3	3.19E+00			No TRV	3.19E+00
Hexachlorocyclopentadiene	77-47-4	No TRV			No TRV	No TRV
Hexachloroethane	67-72-1	No TRV			No TRV	No TRV
Hexachlorophene	70-30-4	5.75E+00			No TRV	5.75E+00
Hexamethylene-1,5-diisocyanate	822-06-0	No TRV			No TRV	No TRV
Mirex	2385-85-5	No TRV			No TRV	No TRV
Nitrofen	1836-75-5	No TRV			No TRV	No TRV
Pentachlorobenzene	608-93-5	No TRV			No TRV	No TRV
Pentachloronitrobenzene	82-68-8	6.88E+01			7.07E+00	6.88E+01
Pentachlorophenol	87-86-5	4.03E+00			No TRV	4.03E+00
Picric acid	88-89-1	No TRV			No TRV	No TRV
Pronamide	23950-58-5	No TRV			No TRV	No TRV
Strychnine	57-24-9	No TRV			No TRV	No TRV
Terphenyls	26140-60-3	No TRV			No TRV	No TRV
Tributyl phosphate	126-73-8	No TRV			No TRV	No TRV
Trifluralin	1582-09-8	No TRV			No TRV	No TRV
Triphenylamine	603-34-9	No TRV			No TRV	No TRV
Herbicides and Organochlorinated Pesticides						
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	93-76-5	No TRV			No TRV	No TRV
2,4-D	94-75-7	No TRV			No TRV	No TRV
4,4'-DDD	72-54-8	No TRV			No TRV	No TRV
4,4'-DDE	72-55-9	8.45E-01	g		No TRV	8.45E-01
4,4'-DDT	50-29-3	No TRV			2.80E-03	2.80E-03
Aldrin	309-00-2	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
alpha-BHC	319-84-6	No TRV			No TRV	No TRV
beta-BHC	319-85-7	No TRV			No TRV	No TRV
Captan	133-06-2	No TRV			No TRV	No TRV
Chlordane	57-74-9	No TRV			2.14E+00	2.14E+00
delta-BHC	319-86-8	No TRV			No TRV	No TRV
Dieldrin	60-57-1	No TRV			7.70E-02	7.70E-02
Endothall	145-73-3	No TRV			No TRV	No TRV
Endrin	72-20-8	No TRV			3.00E-01	3.00E-01
gamma-BHC (Lindane)	58-89-9	No TRV			2.00E+00	2.00E+00
Heptachlor	76-44-8	6.50E-02			No TRV	6.50E-02
Isodrin	465-73-6	No TRV			No TRV	No TRV
Methoxychlor	72-43-5	No TRV			No TRV	No TRV
Silvex (2,4,5-TP)	93-72-1	No TRV			No TRV	No TRV
Toxaphene	8001-35-2	No TRV			No TRV	No TRV
Inorganics						
Metals						
Aluminum	7429-90-5	1.00E+02			1.10E+02	1.00E+02
Antimony	7440-36-0	No TRV			No TRV	No TRV
Arsenic	7440-38-2	2.46E+00			5.14E+00	2.46E+00
Barium	7440-39-3	2.08E+01			2.08E+01	2.08E+01
Beryllium	7440-41-7	No TRV			No TRV	No TRV
Bismuth	7440-69-9	No TRV			No TRV	No TRV
Boron	7440-42-8	No TRV			2.88E+01	2.88E+01
Cadmium	7440-43-9	1.45E+00			1.45E+00	1.45E+00
Calcium	7440-70-2	No TRV			No TRV	No TRV
Chromium (and VI)	7440-47-3	1.00E+00			1.00E+00	1.00E+00
Cobalt	7440-48-4	No TRV			No TRV	No TRV
Copper	7440-50-8	4.70E+01			4.70E+01	4.70E+01
Iron	7439-89-6	No TRV			No TRV	No TRV
Lead	7439-92-1	2.50E-02			1.13E+00	2.50E-02

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Lithium	7439-93-2	No TRV			No TRV	No TRV
Magnesium	7439-95-4	No TRV			No TRV	No TRV
Manganese	7439-96-5	No TRV			9.77E+02	9.77E+02
Mercury	7439-97-6	3.25E+00			4.50E-01	3.25E+00
Molybdenum	7439-98-7	No TRV			3.53E+00	3.53E+00
Nickel	7440-02-0	6.50E+01			7.74E+01	6.50E+01
Potassium	7440-09-7	No TRV			No TRV	No TRV
Rhodium	7440-16-6	No TRV			No TRV	No TRV
Selenium	7782-49-2	5.00E-01			5.00E-01	5.00E-01
Silicon	7440-21-3	No TRV			No TRV	No TRV
Silver	7440-22-4	1.78E+02			No TRV	1.78E+02
Sodium	7440-23-5	No TRV			No TRV	No TRV
Strontium	7440-24-6	No TRV			No TRV	No TRV
Tantalum	7440-25-7	No TRV			No TRV	No TRV
Thallium	7440-28-0	3.50E-01			No TRV	3.50E-01
Tin	7440-31-5	No TRV			No TRV	No TRV
Tungsten	7440-33-7	No TRV			No TRV	No TRV
Uranium	7440-61-1	No TRV			1.60E+01	1.60E+01
Vanadium	7440-62-2	No TRV			1.14E+01	1.14E+01
Yttrium	7440-65-5	No TRV			No TRV	No TRV
Zinc	7440-66-6	1.31E+02			1.45E+01	1.31E+02
Zirconium	7440-67-7	No TRV			No TRV	No TRV
Non-metals and Ions						
Ammonia/Ammonium	7664-41-7	No TRV			No TRV	No TRV
Bromide	24959-67-9	No TRV			No TRV	No TRV
Chloride	16887-00-6	No TRV			No TRV	No TRV
Cyanide	57-12-5	4.00E-02			No TRV	4.00E-02
Fluoride	16984-48-8	No TRV			7.80E+00	7.80E+00
Hydroxide	14280-30-9	No TRV			No TRV	No TRV
Iodine	7553-56-2	No TRV			No TRV	No TRV
Nitrate	14797-55-8	No TRV			No TRV	No TRV

Table C3-4. Toxicity Reference Values (TRVs) for Birds

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Nitrite	14797-65-0	No TRV			No TRV	No TRV
Phosphate	14265-44-2	No TRV			No TRV	No TRV
Phosphorus	7723-14-0	No TRV			No TRV	No TRV
Sulfate	14808-79-8	No TRV			No TRV	No TRV
Total Sulfur	63705-05-5	No TRV			No TRV	No TRV
Criteria Pollutants						
Carbon dioxide	124-38-9	No TRV			No TRV	No TRV
Nitrogen dioxide	10102-44-0	No TRV			No TRV	No TRV
Ozone	10028-15-6	No TRV			No TRV	No TRV
Particulate matter	no cas #	No TRV			No TRV	No TRV
Sulfur dioxide	7446-09-5	No TRV			No TRV	No TRV
Radionuclides	TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for birds from all radionuclides combined cannot exceed 0.1 rad/d.					

TRV = toxicity reference value

[a] Published in Appendix E of EPA (1999), Table E-8.

[b] Published in Table C3-3 of this work plan

[c] Order of preference is EPA (1999), then SAIC compilation

[d] Toxicity of Aroclor 1254 to ring dove used as representative of PCB mixtures

[e] Total exposure to all high molecular weight polycylic aromatic hydrocarbons combined is limited to 0.00014 mg/kg/d.

[f] Published value for benzo(k)fluoranthene used as a surrogate value.

[g] Published value for 1,1'-DDE (sic) used as a surrogate value.

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Organics											
Aromatic Halogenated Hydrocarbons											
2,3,4,6-Tetrachlorophenol	58-90-2	Rat	3.50E-01	2.50E+01	subchronic	NOAEL	Organ wt.	U.S. EPA (1986) in [3]	1.00E-01	1.00E+00	2.50E+00
4-Chloro-3-methylphenol	59-50-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Aromatic Nonhalogenated Hydrocarbons											
2-Nitrotoluene	88-72-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4-Nitrobiphenyl	92-93-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzaldehyde	100-52-7	Rat	3.50E-01	1.43E+02	Subchronic	NOAEL	Forestomach lesions, kidney toxicity	Kluwe et al. (1983) in [4]	1.00E-01	1.00E+00	1.43E+01
Benzene	71-43-2	Mouse	3.00E-02	2.64E+02	chronic	LOAEL	Reproduction	Nawrot and Staples (1979) in [1]	1.00E+00	1.00E-01	2.64E+01
Benzyl alcohol	100-51-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethyl benzene	100-41-4	Rat	3.50E-01	9.71E+01	Subchronic	NOAEL	Liver and kidney toxicity	Wolf et al. (1956) in [3]	1.00E-01	1.00E+00	9.71E+00
m-Xylene	108-38-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
o-Xylene	95-47-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
p-Xylene	106-42-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Styrene	100-42-5	Dog	1.00E+01	2.00E+02	chronic	NOAEL	Liver toxicity	Quast et al. (1979) in [4]	1.00E+00	1.00E+00	2.00E+02
Toluene	108-88-3	Mouse	3.00E-02	2.60E+02	chronic	LOAEL	Reproduction	Nawrot and Staples (1979) in [1]	1.00E+00	1.00E-01	2.60E+01
Non-aromatic Nonhalogenated Hydrocarbons											
1,2-Epoxybutane	106-88-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,3-Butadiene	106-99-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,4-Dioxane	123-91-1	Rat	3.50E-01	5.00E-01	chronic	NOAEL	Reproduction	Giavini et al. (1985) in [1]	1.00E+00	1.00E+00	5.00E-01
1-Methylpropyl alcohol	78-92-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1-Nitropropane	108-03-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,2,4-Trimethylpentane	540-84-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Butanone	78-93-3	Rat	3.50E-01	1.77E+03	Chronic	NOAEL	Decreased fetal birth weight	Cox et al. (1975) in [4]	1.00E+00	1.00E-01	1.77E+02
2-Butenaldehyde (2-Butenal)	4170-30-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Ethoxyethanol	110-80-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
2-Heptanone	110-43-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Hexanone	591-78-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Methoxyethanol	109-86-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Methyl-2-propanol	75-65-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Methyl-2-propenenitrile	126-98-7	Dog	1.00E+01	3.40E-01	Subchronic	NOAEL	Increased SGOT and SGPT levels	Pozzani et al. (1968) in [4]	1.00E-01	1.00E+00	3.40E-02
2-Methylaziridine	75-55-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Methylpropyl alcohol	78-83-1	Rat	3.50E-01	3.16E+02	subchronic	NOAEL	Hypoactivity and ataxia	U.S. EPA (1986) in [3]	1.00E-01	1.00E+00	3.16E+01
2-Pentanone	107-87-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Propanone (Acetone)	67-64-1	Rat	3.50E-01	1.00E+02	subchronic	NOAEL	Liver and kidney toxicity	EPA (1986c) in [1]	1.00E-01	1.00E+00	1.00E+01
2-Propene-1-ol	107-18-6	Rat	3.50E-01	4.80E+00	subchronic	NOAEL	Increased liver and kidney weights	Carpanini et al. (1978) in [3]	1.00E-01	1.00E+00	4.80E-01
2-Propyl alcohol	67-63-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3-Heptanone	106-35-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3-Methyl-1-butanol	123-51-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3-Methyl-2-butanone	563-80-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3-Pentanone	96-22-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4-Heptanone	123-19-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4-Methyl-2-pentanone	108-10-1	Rat	3.50E-01	2.50E+02	subchronic	NOAEL	Liver/Kidney	Microbiological Associates (1986) in [1]	1.00E-01	1.00E+00	2.50E+01
4-Methyl-3-penten-2-one	141-79-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
5-Methyl-2-hexanone	110-12-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acetaldehyde	75-07-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acetamide	60-35-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acetic acid	64-19-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acetic acid ethyl ester	141-78-6	Rat	3.50E-01	9.00E+02	Subchronic	NOAEL	Mortality	U.S. EPA (1986) in [4]	1.00E-01	1.00E+00	9.00E+01
Acetic acid n-butyl ester	123-86-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acetonitrile	75-05-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acrolein	107-02-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acrylonitrile	107-13-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bis(isopropyl)ether	108-20-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Butane	106-97-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Carbon disulfide	75-15-0	Rabbit	NA	1.10E+01	Chronic	NOAEL	Fetal toxicity/malformations	Hardin et al. (1981) in [3]	1.00E+00	1.00E+00	1.10E+01
Cyanogen	460-19-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Cyclohexane	110-82-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Cyclohexanone	108-94-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Cyclohexene	110-83-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Cyclopentane	287-92-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethyl alcohol	64-17-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethyl ether	60-29-7	Rat	3.50E-01	5.00E+02	subchronic	NOAEL	Depressed body weights	U.S. EPA (1986) in [3]	1.00E-01	1.00E+00	5.00E+01
Ethyl methacrylate	97-63-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Formaldehyde	50-00-0	Rat	3.50E-01	1.50E+01	Chronic	NOAEL	Histopathology	Til et al. (1989) in [4]	1.00E+00	1.00E-01	1.50E+00
Formamide	75-12-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Formic acid	64-18-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Formic acid, methyl ester	107-31-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Glycidylaldehyde	765-34-4	Rat	3.50E-01	1.09E+00	Subchronic	NOAEL	Retardation, enlarged adrenals, hydropic renal pelvis and hematopoietic effects	Hine et al. (1961) in [4]	1.00E-01	1.00E+00	1.09E-01
Methyl acetate	79-20-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methyl alcohol	67-56-1	Rat	3.50E-01	5.00E+02	Subchronic	NOAEL	Increased SAP and SGPT, and decreased brain weight	U.S. EPA (1986) in [4]	1.00E-01	1.00E+00	5.00E+01
Methyl isocyanate	624-83-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methyl methacrylate	80-62-6	Rat	3.50E-01	1.36E+02	chronic	NOAEL	NA	Borzelleca et al. (1964)	1.00E+00	1.00E+00	1.36E+02
Methyl tert-butyl ether	1634-04-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methylacetylene	74-99-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methylcyclohexane	108-87-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
N,N-Dimethylacetamide	127-19-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
n-Butyl alcohol	71-36-3	Rat	3.50E-01	1.25E+02	Subchronic	NOAEL	Hypoactivityand ataxia	U.S. EPA (1986) in [4]	1.00E-01	1.00E+00	1.25E+01
n-Heptane	142-82-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Hexane	110-54-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Nitromethane	75-52-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Nonane	111-84-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Octane	111-65-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Pentane	109-66-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Propionaldehyde	123-38-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Propyl alcohol	71-23-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Valeraldehyde	110-62-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Oxirane	75-21-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
p-Cymene	99-87-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Phosgene	75-44-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Propargyl alcohol	107-19-7	Rat	3.50E-01	5.00E+00	Subchronic	NOAEL	Renal and hepatotoxicity	U.S. EPA (1987) in [4]	1.00E-01	1.00E+00	5.00E-01
Propionic acid	79-09-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Propionitrile	107-12-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Propylene gylcol monomethyl ether	107-98-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
p-tert-Butyltoluene	98-51-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Triethylamine	121-44-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trimethylamine	75-50-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Vinyl acetate	108-05-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Non-aromatic Halogenated Hydrocarbons											
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,1,1,2-Tetrachloroethane	630-20-6	NA	NA	8.93E+01	Chronic	LOAEL	Mineralizaation of the kidneys in males, hepatic clear cell change in females	NTP (1983) in [4]	1.00E+00	1.00E-01	8.93E+00
1,1,1-Trichloroethane	71-55-6	Mouse	3.50E-02	1.00E+03	Chronic	NOAEL	Reproduction	Lane et al. (1982) in [1]	1.00E+00	1.00E+00	1.00E+03
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,1,2,2-Tetrachloroethane	79-34-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
1,1,2,2-Tetrachloroethene	127-18-4	Mouse	3.00E-02	1.40E+01	Chronic	NOAEL	Hepatotoxicity in mice	Buben and O'Flaherty (1985) in [4]	1.00E+00	1.00E-01	1.40E+00
1,1,2-Trichloroethane	79-00-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,1,2-Trichloroethylene	79-01-6	Mouse	3.00E-02	1.00E+02	subchronic	LOAEL	Hepatotoxicity in mice	Buben and O'Flaherty (1985) in [1]	0.07[a]	1.00E-01	7.00E-01
1,1-Dichloroethane	75-34-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,1-Dichloroethene	75-35-4	Rat	3.50E-01	3.00E+01	chronic	NOAEL	Mortality	Quast et al. (1983) in [1]	1.00E+00	1.00E+00	3.00E+01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3-Trichloropropane	96-18-4	Rat	3.50E-01	5.71E+00	Subchronic	NOAEL	Alterations in clinical chemistry and reduction in red cell mass	NTP (1983) in [4]	1.00E-01	1.00E+00	5.71E-01
1,2-Dibromo-3-chloropropane	96-12-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2-Dichloroethane	107-06-2	Mouse	3.50E-02	5.00E+01	chronic	NOAEL	Reproduction	Lane et al. (1982) in [1]	1.00E+00	1.00E+00	5.00E+01
1,2-Dichloroethylene	540-59-0	Mouse	3.00E-02	4.52E+02	Subchronic	NOAEL	Body weight	Palmer et al. (1979) in [1]	1.00E-01	1.00E+00	4.52E+01
1,2-Dichloropropane	78-87-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,3-Dichloropropene	542-75-6	Rat	3.50E-01	3.00E+00	Subchronic	NOAEL	Increased organ weights	Dow Chemical (1973) in [4]	1.00E-01	1.00E+00	3.00E-01
1,4-Dichloro-2-butene	764-41-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1-Chloroethene	75-01-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,2-Dichloropropionic acid	75-99-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Chloropropane	75-29-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3-Chloropropene (Allyl chloride)	107-05-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bromochloromethane	74-97-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bromodichloromethane	75-27-4	Mouse	3.00E-02	1.79E+01	Chronic	LOAEL	Renal cytomegaly	NTP (1986) in [4]	1.00E+00	1.00E-01	1.79E+00
Bromoethene	593-60-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bromoform	75-25-2	Rat	3.50E-01	1.79E+01	Subchronic	NOAEL	Hepatic lesions	NTP (1989) in [4]	1.00E-01	1.00E+00	1.79E+00
Bromomethane	74-83-9	Rat	3.50E-01	1.40E+00	Subchronic	NOAEL	Epithelial hyperplasia of the forestomach	Danse et al. (1984) in [4]	1.00E-01	1.00E+00	1.40E-01

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Carbon tetrachloride	56-23-5	Rat	3.50E-01	7.10E-01	Subchronic	NOAEL	Liver lesions	Bruckner et al. (1986) in [4]	1.00E-01	1.00E+00	7.10E-02
Chlorodibromomethane	124-48-1	Rat	3.50E-01	2.14E+01	Subchronic	NOAEL	Hepatic lesions	NTP (1985) in [4]	1.00E-01	1.00E+00	2.14E+00
Chlorodifluoromethane	75-45-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chloroethane	75-00-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chloroform	67-66-3	Rat	3.50E-01	1.50E+02	subchronic	NOAEL	Gonad atrophy	Palmer et al. (1979) in [1]	1.00E-01	1.00E+00	1.50E+01
Chloromethane	74-87-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chloropentafluoroethane	76-15-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
cis-1,2-Dichloroethene	156-59-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
cis-1,3-Dichloropropene	10061-01-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Cyanogen bromide	506-68-3	Rat	3.50E-01	4.40E+01	Chronic	NOAEL	Thyroid effects and myelin degeneration	Philbrick et al. (1979) in [4]	1.00E+00	1.00E-01	4.40E+00
Cyanogen chloride	506-77-4	Rat	3.50E-01	2.53E+01	Chronic	NOAEL	Thyroid effects and myelin degeneration	Philbrick et al. (1979) in [4]	1.00E+00	1.00E-01	2.53E+00
Dichlorodifluoromethane	75-71-8	Rat	3.50E-01	1.50E+01	Chronic	NOAEL	Reduced body weight	Sherman (1974) in [4]	1.00E+00	1.00E-01	1.50E+00
Dichlorofluoromethane	75-43-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dichloromethane	75-09-2	Rat	3.50E-01	6.16E+00	Chronic	NOAEL	Liver toxicity	National Coffee Association (1982) in [4]	1.00E+00	1.00E-01	6.16E-01
Difluorodibromomethane	75-61-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Hexafluoroacetone	684-16-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Iodomethane	74-88-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methylene bromide	74-95-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Pentachloroethane	76-01-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
trans-1,2-Dichloroethylene	156-60-5	Mouse	3.00E-02	1.70E+01	Chronic	NOAEL	Increased serum alkaline phosphatase in male mice	Barnes et al. (1985) in [4]	1.00E+00	1.00E-01	1.70E+00
trans-1,3-Dichloropropene	10061-02-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trichloroacetic acid	76-03-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trichlorofluoroethane	27154-33-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trichlorofluoromethane	75-69-4	Rat	3.50E-01	3.49E+02	Chronic	LOAEL	Survival and histopathology	NCI (1978) in [4]	1.00E+00	1.00E-01	3.49E+01

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Trifluorobromomethane	75-63-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dioxin and Furan Compounds											
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	Rat	3.50E-01	1.60E-03	subchronic	NOAEL	Organ weight	Poiger et al. (1989) in [1]	1.00E-01	1.00E+00	1.60E-04
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	Rat	3.50E-01	1.60E-03	subchronic	NOAEL	Organ weight	Poiger et al. (1989) in [1]	1.00E-01	1.00E+00	1.60E-04
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	Rat	3.50E-01	1.60E-04	subchronic	NOAEL	Organ weight	Poiger et al. (1989) in [1]	1.00E-01	1.00E+00	1.60E-05
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Rat	3.50E-01	1.00E-06	chronic	NOAEL	Reproduction	Murray et al. (1979) in [1]	1.00E+00	1.00E+00	1.00E-06
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzofuran	132-64-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Octachlorodibenzo(p)dioxin	3268-87-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Octachlorodibenzofuran	39001-02-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
PCBs											
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2',3,4,4',5-Pentachlorobiphenyl	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3,3',4,4',5-Pentachlorobiphenyl	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Polychlorinated biphenyls (PCBs)[h]	1336-36-3	Oldfield mouse	1.40E-02	6.80E-01	chronic	LOAEL	Reproduction	McCoy et al. (1995) in [1]	1.00E+00	1.00E-01	6.80E-02
Phthalates											
Bis(2-ethylhexyl)phthalate	117-81-7	Mouse	3.00E-02	1.83E+01	chronic	NOAEL	Reproduction	Lamb et al. (1987) in [1]	1.00E+00	1.00E+00	1.83E+01
Butylbenzylphthalate	85-68-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Di-n-butylphthalate	84-74-2	Mouse	3.00E-02	5.50E+02	chronic	NOAEL	Reproduction	Lamb et al. (1987) in [1]	1.00E+00	1.00E+00	5.50E+02
Diethylphthalate	84-66-2	Mouse	3.00E-02	4.58E+03	chronic	NOAEL	Reproduction	Lamb et al. (1987) in [1]	1.00E+00	1.00E+00	4.58E+03
Dimethylphthalate	131-11-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
n-Dioctyl phthalate	117-84-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Light Polycyclic Aromatic Hydrocarbons											
2-Chloronapthalene	91-58-7	Mouse	3.00E-02	2.50E+02	Chronic	NOAEL	Dyspnea, abnormal appearance, liver enlargement	U.S. EPA (1989) in [4]	1.00E+00	1.00E+00	2.50E+02
2-Methylnaphthalene	91-57-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
5-Nitroacenaphthene	602-87-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acenaphthene	83-32-9	Mouse	3.00E-02	1.75E+02	subchronic	NOAEL	Hepatotoxicity	U.S. EPA (1989) in [3]	1.00E-01	1.00E+00	1.75E+01
Acenaphthylene	208-96-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Anthracene	120-12-7	Mouse	3.00E-02	1.00E+03	Subchronic	NOAEL	NA	U.S. EPA (1989) in [3]	1.00E-01	1.00E+00	1.00E+02
Fluorene	86-73-7	NA	NA	1.25E+02	subchronic	NOAEL	Blood	U.S. EPA (1989) in [3]	1.00E-01	1.00E+00	1.25E+01
Indene	95-13-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Naphthalene	91-20-3	NA	NA	7.10E+01	Subchronic	NOAEL	Decreased body weights in males	BCL (1980a) in [4]	1.00E-01	1.00E+00	7.10E+00
Phenanthrene	85-01-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Pyrene	129-00-0	NA	NA	7.50E+01	Subchronic	NOAEL	Kidney effects	U.S. EPA (1989) in [4]	1.00E-01	1.00E+00	7.50E+00

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Heavy Polycyclic Aromatic Hydrocarbons											
3-Methylcholanthrene	56-49-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
5-Methylchrysene	3697-24-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo(a)anthracene	56-55-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo(a)pyrene	50-32-8	Mouse	3.00E-02	1.00E+01	chronic	LOAEL	Reproduction	Mackenzie and Angevine (1981) in [1]	1.00E+00	1.00E-01	1.00E+00
Benzo(b)fluoranthene	205-99-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo(e)pyrene	192-97-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo(g,h,i)perylene	191-24-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo(j)fluoranthene	205-82-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo(k)fluoranthene	207-08-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzo[a,i]pyrene	191-30-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chrysene	218-01-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzo(a,h)anthracene	53-70-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenz[a,h]acridine	226-36-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenz[a,j]acridine	224-42-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzo(a,e)fluoranthene	5385-75-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzo(a,h)fluoranthene	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzo[a,e]pyrene	192-65-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzo[a,h]pyrene	189-64-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibenzo[a,i]pyrene	189-55-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Fluoranthene	206-44-0	Mouse	3.00E-02	1.25E+02	Subchronic	NOAEL	Nephropathy, hematological alterations, and clinical effects	U.S. EPA (1988) in [4]	1.00E-01	1.00E+00	1.25E+01
Hexachloronaphthalene	1335-87-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Indeno(1,2,3-cd)pyrene	193-39-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Octachloronaphthalene	2234-13-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Pentachloronaphthalene	1321-64-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Tetrachloronaphthalene	1335-88-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trichloronaphthalene	1321-65-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Light Substituted Benzene Compounds											
1,2,3-Trichlorobenzene	87-61-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,4-Trichlorobenzene	120-82-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2,4-Trimethyl benzene	95-63-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2-Dichlorobenzene	95-50-1	Rat	3.50E-01	8.57E+01	Chronic	NOAEL	No adverse effects observed	NTP (1985 in [4]	1.00E+00	1.00E+00	8.57E+01
1,3,5-Trimethyl benzene	108-67-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,3-Dichlorobenzene	541-73-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,3-Dinitrobenzene	99-65-0	Rat	4.50E-01	1.13E+00	subchronic	NOAEL	Reproduction	Cody et al. (1981) in [4]	1.00E-01	NA	1.10E-01
1,4-Dichlorobenzene	106-46-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,4-Dinitrobenzene	100-25-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,4,5-Trichlorophenol	95-95-4	Rat	3.50E-01	1.00E+02	Subchronic	NOAEL	Liver and kidney pathology	McCollister et al. (1961) in [4]	1.00E-01	1.00E+00	1.00E+01
2,4,6-Trichlorophenol	88-06-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,4-Dichlorophenol	120-83-2	Rat	3.50E-01	3.00E-01	Subchronic	NOAEL	Decreased delayed hypersensitivity response	Exon and Koller (1985) in [4]	1.00E-01	1.00E+00	3.00E-02
2,4-Dimethylphenol	105-67-9	Mouse	3.00E-02	5.00E+00	Subchronic	NOAEL	Lethargy, prostration, and ataxia	U.S. EPA (1989) in [3]	1.00E-01	1.00E+00	5.00E-01
2,4-Dinitrophenol	51-28-5	Human	7.00E+01	2.00E+00	Chronic	LOAEL	Cataract formation	Horner (1942) in [4]	1.00E+00	1.00E-01	2.00E-01
2,4-Dinitrotoluene	121-14-2	Mouse	3.00E-02	1.35E+01	chronic	NOAEL	Reproduction	Ellis et al. (1979)	1.00E+00	1.00E+00	1.35E+01
2,6-Dinitrotoluene	606-20-2	Rat	3.50E-01	7.00E+00	subchronic	NOAEL	Reproduction	ATSDR (1989)	1.00E-01	1.00E+00	7.00E-01
2-Chlorophenol	95-57-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Chlorotoluene	95-49-8	Rat	3.50E-01	2.00E+01	Chronic	NOAEL	Decrease in body weight gain	Gibson et al. (1974a) in [4]	1.00E+00	1.00E+00	2.00E+01
2-Nitrophenol	88-75-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4,6-Dinitro-o-cresol	534-52-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4-Chlorotoluene	106-43-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4-Nitrophenol	100-02-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
alpha-Methylstyrene	98-83-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Aniline	62-53-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Benzotrichloride	98-07-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Benzyl chloride	100-44-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bromobenzene	108-86-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chlorobenzene	108-90-7	Dog	1.00E+01	1.90E+01	chronic	NOAEL	Histopathologic changes in liver	Monsanto Co. (1967a; Knapp et al. (1971) in [3]	1.00E+00	1.00E+00	1.90E+01
Cumene	98-82-8	Rat	3.50E-01	1.10E+02	Chronic	NOAEL	Increased average kidney weight in female rats	Wolf et al. (1956) in [4]	1.00E+00	1.00E+00	1.10E+02
m-Cresol	108-39-4	Rat	3.50E-01	5.00E+01	Subchronic	NOAEL	Decreased body weights and neurotoxicity	U.S. EPA (1986 (1987) in [4]	1.00E-01	1.00E+00	5.00E+00
n-Butyl benzene	104-51-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Nitrobenzene	98-95-3	Rat/Mouse	3.50E-01	4.60E+00	Subchronic	LOAEL	Hematologic, adrenal, renal and hepatic lesions	CIIT (1984) in [4]	1.00E-01	1.00E-01	4.60E-02
n-Propyl benzene	103-65-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
o-Cresol	95-48-7	Rat	3.50E-01	5.00E+01	Subchronic	NOAEL	Decreased body weights and neurotoxicity	U.S. EPA (1986 (1987) in [4]	1.00E-01	1.00E+00	5.00E+00
o-Dinitrobenzene	528-29-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
o-Nitroaniline	88-74-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
o-Toluidine	95-53-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
p-Chloroaniline	106-47-8	Rat	3.50E-01	1.25E+01	Chronic	LOAEL	Nonneoplastic lesions of splenic capsule	NCI (1979) in [4]	1.00E+00	1.00E-01	1.25E+00
p-Cresol	106-44-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Phenol	108-95-2	Rat	3.50E-01	6.00E+01	Chronic	NOAEL	Reduced fetal body weight in rats	NTP (1983) in [4]	1.00E+00	1.00E+00	6.00E+01
p-Nitrochlorobenzene	100-00-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
p-Toluidine	106-49-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
sec-Butyl benzene	135-98-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
tert-Butyl benzene	98-06-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Toluene-2,6-diamine	823-40-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trimethyl benzene	25551-13-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Other Light Semivolatile Compounds											
1,1'-Biphenyl	92-52-4	Rat	3.50E-01	5.00E+01	Chronic	NOAEL	Kidney damage	Ambrose et al. (1960) in [4]	1.00E+00	1.00E-01	5.00E+00

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
1,1-Dimethylhydrazine	57-14-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2-Dimethylhydrazine	540-73-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,2-Diphenylhydrazine	122-66-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
1,3-Propane sultone	1120-71-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2,4-Toluene diisocyante	584-84-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Chloroacetophenone	532-27-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Propenoic acid	79-10-7	Rat	3.50E-01	5.30E+01	Chronic	NOAEL	Reduced pup weight	BASF (1993) in [4]	1.00E+00	1.00E-01	5.30E+00
4,4-Methylenedianiline	101-77-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Acetophenone	98-86-2	Rat	3.50E-01	4.23E+02	Subchronic	NOAEL	General toxicity	Hagen et al. (1967) in [4]	1.00E-01	1.00E+00	4.23E+01
Benzoic acid	65-85-0	Mouse	3.00E-02	4.00E+01	chronic	LOAEL	unknown	Shtenberg and Ignat'ev (1970) in [3]	1.00E+00	1.00E-01	4.00E+00
Bis(2-chloroethoxy)methane	111-91-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bis(2-chloroethyl) ether	111-44-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chlorocyclopentadiene	41851-50-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Cyclohexanol	108-93-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dichloroisopropyl ether	108-60-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dichloromethyl ether	542-88-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dichloropentadiene	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dimethyl sulfate	77-78-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dimethylaniline	121-69-7	Mouse	3.00E-02	2.23E+01	Subchronic	LOAEL	Splenomegalyand hematopoiesis	Abdo et al. (1984) in [3]	1.00E-01	1.00E-01	2.23E-01
di-n-Propylnitrosamine	621-64-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Diphenyl ether	101-84-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Epichlorohydrin	106-89-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethyl Carbamate (Urethane)	51-79-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethyl methanesulfonate	62-50-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethylene dibromide	106-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ethylene glycol	107-21-1	Rat	3.50E-01	2.00E+02	Chronic	NOAEL	Kidney toxicity	DePass et al. (1986a) in [4]	1.00E+00	1.00E-01	2.00E+01
Ethylene glycol monobutyl ether	111-76-2	Rat/Mouse	3.50E-01	5.10E+00	Subchronic	NOAEL	Changes in mean corpuscular	NTP (1993) in [4]	1.00E-01	1.00E+00	5.10E-01
Ethylene glycol monoethyl ether acetate	111-15-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Ethylene thiourea	96-45-7	Rat	3.50E-01	2.50E-01	Chronic	LOAEL	Increased incidence of thyroid hyperplasia	Graham et al. (1975) in [4]	1.00E+00	1.00E-01	2.50E-02
Furfural	98-01-1	Rat	3.50E-01	7.90E+00	Subchronic	LOAEL	Mild hepatocellular vacuolization	NTP (1981a) in [4]	1.00E+00	1.00E-01	7.90E-01
Maleic hydrazide	123-33-1	Rat	3.50E-01	5.00E+02	chronic	LOAEL	Renal dysfunction	Uniroyal Chemical Co. (1981) in [3]	1.00E+00	1.00E-01	5.00E+01
Malononitrile	109-77-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methyl styrene (mixed isomers)	25013-15-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Methylhydrazine	60-34-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
N,N-Diphenylamine	122-39-4	Dog	1.00E+01	2.50E+00	Chronic	NOAEL	Increased liver and kidney weights	Thomas et. al. (1967) in [4]	1.00E+00	1.00E-01	2.50E-01
Nitric acid, propyl ester	627-13-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
N-Nitrosodi-n-butylamine	924-16-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
N-Nitrosomorpholine	59-89-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
N-Nitroso-N,N-dimethylamine	62-75-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
o-Anisidine	90-04-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Oxalic acid	144-62-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Phthalic anhydride	85-44-9	Mouse	3.00E-02	1.56E+03	Chronic	LOAEL	Lung and kidney histopathology	NCI (1979) in [4]	1.00E+00	1.00E-01	1.56E+02
p-Phthalic acid	100-21-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Pyridine	110-86-1	Rat	3.50E-01	1.00E+00	Chronic	NOAEL	Increased liver weight	U.S. EPA (1986 in [4]	1.00E+00	1.00E-01	1.00E-01
Quinoline	91-22-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Quinone	106-51-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Safrole	94-59-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Tetrahydrofuran	109-99-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Other Heavy Semivolatile Compounds											
1,2,4,5-Tetrachlorobenzene	95-94-3	Rat	3.50E-01	3.40E-01	Subchronic	NOAEL	Kidney lesions	Chu et al. (1984) in [4]	1.00E-01	1.00E+00	3.40E-02
1,3,5-Trinitrobenzene	99-35-4	Mouse	1.85E-02	6.74E+01	subchronic	NOAEL	Reproduction	Pathology Associates Inc. (1994) in [4]	1.00E-01	NA	6.70E+00
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	Human	7.00E+01	2.00E+00	Subchronic	LOAEL	Cataract formation	Horner (1942) in [4]	1.00E+00	1.00E-01	2.00E-01

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
2-sec-Butyl-4,6-dinitrophenol	88-85-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3,3-Dichlorobenzidine	91-94-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
3,3'-Dimethoxybenzidine	119-90-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4-Bromophenylphenyl ether	101-55-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ammonium perfluorooctanoate	3825-26-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Azobenzene	103-33-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chlorobenzilate	510-15-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dibutylphosphate	107-66-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dimethyl aminoazobenzene	60-11-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Hexachlorobenzene	118-74-1	Rat	3.50E-01	8.00E-02	Chronic	NOAEL	Liver effects	Arnold et al. (1985) in [4]	1.00E+00	1.00E-01	8.00E-03
Hexachlorobutadiene	87-68-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Hexachlorocyclopentadiene	77-47-4	Rat	3.50E-01	7.00E+00	Subchronic	NOAEL	Stomach lesions	Abdo et al. (1984) in [4]	1.00E-01	1.00E+00	7.00E-01
Hexachloroethane	67-72-1	Rat	3.50E-01	1.00E+00	Subchronic	NOAEL	Atrophy and degeneration of the renal tubules	Gorzinski et al. (1985) in [4]	1.00E-01	1.00E+00	1.00E-01
Hexachlorophene	70-30-4	Dog	1.00E+01	7.50E-01	Chronic	LOAEL	Swollen salivary lands, status spongiosis in brain and optic nerve	Nationwide Chemical Corp. (1974) in [4]	1.00E+00	1.00E-01	7.50E-02
Hexamethylene-1,5-diisocyanate	822-06-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Mirex	2385-85-5	Rat	3.50E-01	7.00E-02	chronic	NOAEL	Liver cytomegaly	NTP (1990) in [3]	1.00E+00	1.00E+00	7.00E-02
Nitrofen	1836-75-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Pentachlorobenzene	608-93-5	Rat	3.50E-01	8.30E+00	Subchronic	LOAEL	Liver and kidney toxicity	Linder et al. (1980) in [4]	1.00E+00	1.00E-01	8.30E-01
Pentachloronitrobenzene	82-68-8	Dog	1.00E+01	7.50E-01	Chronic	NOAEL	Liver toxicity	Olin Mathieson Corp. (1968a) in [4]	1.00E+00	1.00E-01	7.50E-02
Pentachlorophenol	87-86-5	Rat	3.50E-01	2.40E-01	chronic	NOAEL	Reproduction	Schwetz et al. (1978) in [1]	1.00E+00	1.00E+00	2.40E-01
Picric acid	88-89-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Pronamide	23950-58-5	Dog	1.00E+01	7.50E+00	Chronic	NOAEL	No effects	Rohm & Hass, Co. (1970a) in [4]	1.00E+00	1.00E-01	7.50E-01

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Strychnine	57-24-9	Rat	3.50E-01	2.50E+00	Subchronic	LOAEL	Toxicity/histopathology	Seidl and Zbinden (1982) in [4]	1.00E+00	1.00E-01	2.50E-01
Terphenyls	26140-60-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Tributyl phosphate	126-73-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Trifluralin	1582-09-8	Dog	1.00E+01	7.50E-01	chronic	NOAEL	Increased liver weights	Hoechst Aktiengesellschaft (1984a) in [3]	1.00E-01	1.00E+00	7.50E-02
Triphenylamine	603-34-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Herbicides and Organochlorinated Pesticides											
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	93-76-5	Rat	3.50E-01	3.00E+00	chronic	NOAEL	Urinary coproporphyrins	Smith et al. (1981) in [3]	1.00E+00	1.00E+00	3.00E+00
2,4-D	94-75-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4,4'-DDD	72-54-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4,4'-DDE	72-55-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
4,4'-DDT	50-29-3	Rat	3.50E-01	8.00E-01	chronic	NOAEL	Reproduction	Fitzhugh (1948) in [1]	1.00E+00	1.00E+00	8.00E-01
Aldrin	309-00-2	Rat	3.50E-01	2.00E-01	chronic	NOAEL	Reproduction	EPA (1988a) in [1]	1.00E+00	1.00E+00	2.00E-01
alpha-BHC	319-84-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
beta-BHC	319-85-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Captan	133-06-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chlordane	57-74-9	Mouse	3.00E-02	4.58E+00	chronic	NOAEL	Reproduction	Keplinger et al. (1968) in [1]	1.00E+00	1.00E+00	4.58E+00
delta-BHC	319-86-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Dieldrin	60-57-1	Rat	3.50E-01	2.00E-01	Chronic	Loael	Reproduction	Treon and Cleveland (1955) in [1]	1.00E+00	1.00E-01	2.00E-02
Endothall	145-73-3	Dog	1.00E+01	2.00E+00	Chronic	NOAEL	Increased weight of stomach and small intestine	Pennwalt Agchem. (1965) in [4]	1.00E+00	1.00E+00	2.00E+00
Endrin	72-20-8	Mouse	3.00E-02	9.20E-01	chronic	LOAEL	Reproduction	Good and Ware (1969) in [1]	1.00E+00	1.00E-01	9.20E-02
gamma-BHC (Lindane)	58-89-9	Rat	3.50E-01	8.00E+00	chronic	NOAEL	Reproduction	Palmer et al. (1978) in [1]	1.00E+00	1.00E+00	8.00E+00
Heptachlor	76-44-8	Mink	1.00E+00	1.00E+00	chronic	LOAEL	Reproduction	Crumet al. (1993) in [1]	1.00E+00	1.00E-01	1.00E-01
Isodrin	465-73-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Methoxychlor	72-43-5	NA	NA	5.01E+00	chronic	NOAEL	Excessive loss of litters	Kincaid Enterprises (1986) in [4]	1.00E+00	1.00E+00	5.01E+00
Silvex (2,4,5-TP)	93-72-1	Dog	1.00E+01	7.50E-01	chronic	NOAEL	Liver	Mullison (1966, Gehring and Betso (1978)) in [3]	1.00E+00	1.00E+00	7.50E-01
Toxaphene	8001-35-2	Rat	3.50E-01	8.00E+00	Chronic	NOAEL	Reproduction	Kennedy et al. (1973) in [1]	1.00E+00	1.00E+00	8.00E+00
Inorganics											
Metals											
Aluminum	7429-90-5	Mouse	3.00E-02	1.93E+01	chronic	LOAEL	Reproduction	Ondreicka et al. (1966) in [1]	1.00E+00	1.00E-01	1.93E+00
Antimony	7440-36-0	Mouse	3.00E-02	1.25E+00	chronic	LOAEL	Longevity	Schroeder et al. (1968b) in [1]	1.00E+00	1.00E-01	1.25E-01
Arsenic	7440-38-2	Mouse	3.00E-02	1.26E+00	chronic	LOAEL	Reproduction	Schroeder and Mitchner (1971) in [1]	1.00E+00	1.00E-01	1.26E-01
Barium	7440-39-3	Rat	4.35E-01	5.06E+00	chronic	NOAEL	Growth	Perry et al. (1983) in [1]	1.00E+00	1.00E+00	5.06E+00
Beryllium	7440-41-7	Rat	3.50E-01	6.60E-01	chronic	NOAEL	Longevity	Schroeder and Mitchner (1975) in [1]	1.00E+00	1.00E+00	6.60E-01
Bismuth	7440-69-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Boron	7440-42-8	Rat	3.50E-01	2.80E+01	chronic	NOAEL	Reproduction	Weir and Fisher (1972) in [1]	1.00E+00	1.00E+00	2.80E+01
Cadmium	7440-43-9	Rat	3.03E-01	1.00E+00	chronic	NOAEL	Reproduction	Sutou et al. (1980b) in [1]	1.00E+00	1.00E+00	1.00E+00
Calcium	7440-70-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chromium (and VI)	7440-47-3	Rat	3.50E-01	2.74E+03	chronic	NOAEL	Reproduction	Ivankovic and Preussmann (1975) in [1]	1.00E+00	1.00E+00	2.74E+03
Cobalt	7440-48-4	Rat	3.50E-01	1.00E+00	subchronic	NOAEL	Mortality	Underhill et al. (1931) in [2]	1.00E-01	1.00E+00	1.00E-01
Copper	7440-50-8	Mink	1.00E+00	1.17E+01	chronic	NOAEL	Reproduction	Aulerich et al. (1982) in [1]	1.00E+00	1.00E+00	1.17E+01
Iron	7439-89-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Lead	7439-92-1	Rat	3.50E-01	8.00E+00	chronic	NOAEL	Reproduction	Azar et al. (1973) in [1]	1.00E+00	1.00E+00	8.00E+00
Lithium	7439-93-2	Rat	3.50E-01	9.39E+00	Chronic	NOAEL	Reproduction	Marathe and Thomas (1986) in [1]	1.00E+00	1.00E+00	9.39E+00
Magnesium	7439-95-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Manganese	7439-96-5	Rat	3.50E-01	8.80E+01	chronic	NOAEL	Reproduction	Laskey et al. (1982) in [1]	1.00E+00	1.00E+00	8.80E+01
Mercury	7439-97-6	Mink	1.00E+00	1.01E+00	chronic	NOAEL	Reproduction	Aulerich et al. (1974) in [1]	1.00E+00	1.00E+00	1.01E+00
Molybdenum	7439-98-7	Mouse	3.00E-02	2.58E+00	chronic	LOAEL	Reproduction	Schroeder and Mitchner (1971) in [1]	1.00E+00	1.00E-01	2.58E-01
Nickel	7440-02-0	Rat	3.50E-01	4.00E+01	chronic	NOAEL	Reproduction	Ambrose et al. (1976) in [1]	1.00E+00	1.00E+00	4.00E+01
Potassium	7440-09-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Rhodium	7440-16-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Selenium	7782-49-2	Rat	3.50E-01	2.00E-01	chronic	NOAEL	Reproduction	Rosenfeld and Beath (1954) in [1]	1.00E+00	1.00E+00	2.00E-01
Silicon	7440-21-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Silver	7440-22-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Sodium	7440-23-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Strontium	7440-24-6	Rat	3.50E-01	2.63E+02	Chronic	NOAEL	Body weight	Skoryna (1981) in [1]	1.00E+00	1.00E+00	2.63E+02
Tantalum	7440-25-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Thallium	7440-28-0	Rat	3.65E-01	7.40E-01	subchronic	LOAEL	Reproduction	Formigli et al. (1986) in [1]	1.00E-01	1.00E-01	7.40E-03
Tin	7440-31-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Tungsten	7440-33-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Uranium	7440-61-1	Mouse	3.00E-02	3.07E+00	Chronic	NOAEL	Reproduction	Paternain et al. (1989) in [1]	1.00E+00	1.00E+00	3.07E+00
Vanadium	7440-62-2	Rat	2.60E-01	2.10E+00	chronic	LOAEL	Reproduction	Domingo et al. (1986) in [1]	1.00E+00	1.00E-01	2.10E-01
Yttrium	7440-65-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Zinc	7440-66-6	Rat	3.50E-01	1.60E+02	chronic	NOAEL	Reproduction	Schlicker and Cox (1968) in [1]	1.00E+00	1.00E+00	1.60E+02
Zirconium	7440-67-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Non-metals and Ions											
Ammonia/Ammonium	7664-41-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Bromide	24959-67-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Chloride	16887-00-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF
Cyanide	57-12-5	Rat	2.73E-01	6.87E+01	chronic	NOAEL	Reproduction	Tewe and Maner (1981) in [1]	1.00E+00	1.00E+00	6.87E+01
Fluoride	16984-48-8	Mink	1.00E+00	3.14E+01	Chronic	NOAEL	Reproduction	Aulerich et al. (1987) in [1]	1.00E+00	1.00E+00	3.14E+01
Hydroxide	14280-30-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Iodine	7553-56-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Nitrate	14797-55-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Nitrite	14797-65-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Phosphate	14265-44-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Phosphorus	7723-14-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Sulfate	14808-79-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Total Sulfur	63705-05-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Criteria Pollutants											
Carbon dioxide	124-38-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Nitrogen dioxide	10102-44-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Ozone	10028-15-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Particulate matter	no cas #	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Sulfur dioxide	7446-09-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	No TRV
Radionuclides	TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for mammals from all radionuclides combined cannot exceed 0.1 rad/d.										

TRV = toxicity reference value

DCF = Duration conversion factor; 1 if chronic, 0.1 if subchronic (Sample et al. 1996)

LOAEL = Lowest observed adverse effect level

[1] = Sample et al. (1996)

Table C3-5. Derivation of SAIC-Compiled Toxicity Reference Values (TRVs) for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Test Species Body Weight (kg) BWt	Benchmark (mg/kgBW/d)	Test Duration	Endpoint	Effect	Source	Duration Conversion Factor DCF	Endpoint Conversion Factor ECF	TRV (mg/kgBW/d) benchmark x DCF x ECF

ECF = Endpoint conversion factor; 1 if NOAEL, 0.1 if LOAEL (Sample et al. 1996)

NOAEL = No observed adverse effect level

NA = No data available

[a] Subchronic-to-chronic conversion factor of 0.1 multiplied by 0.7 to adjust for 5 d/wk exposure.

[b] Data for Aroclor 1254 used as representative of PCB mixtures

[2] = Clayton and Clayton (1981)

[3] = IRIS (1996)

[4] = IRIS (1998)

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Organics						
Aromatic Halogenated Hydrocarbons						
2,3,4,6-Tetrachlorophenol	58-90-2	No TRV			2.50E+00	2.50E+00
4-Chloro-3-methylphenol	59-50-7	No TRV			No TRV	No TRV
Aromatic Nonhalogenated Hydrocarbons						
2-Nitrotoluene	88-72-2	No TRV			No TRV	No TRV
4-Nitrobiphenyl	92-93-3	No TRV			No TRV	No TRV
Benzaldehyde	100-52-7	No TRV			1.43E+01	1.43E+01
Benzene	71-43-2	No TRV			2.64E+01	2.64E+01
Benzyl alcohol	100-51-6	No TRV			No TRV	No TRV
Ethyl benzene	100-41-4	No TRV			9.71E+00	9.71E+00
m-Xylene	108-38-3	No TRV			No TRV	No TRV
o-Xylene	95-47-6	No TRV			No TRV	No TRV
p-Xylene	106-42-3	No TRV			No TRV	No TRV
Styrene	100-42-5	No TRV			2.00E+02	2.00E+02
Toluene	108-88-3	No TRV			2.60E+01	2.60E+01
Non-aromatic Nonhalogenated Hydrocarbons						
1,2-Epoxybutane	106-88-7	No TRV			No TRV	No TRV
1,3-Butadiene	106-99-0	No TRV			No TRV	No TRV
1,4-Dioxane	123-91-1	1.06E+02	d		5.00E-01	1.06E+02
1-Methylpropyl alcohol	78-92-2	No TRV			No TRV	No TRV
1-Nitropropane	108-03-2	No TRV			No TRV	No TRV
2,2,4-Trimethylpentane	540-84-1	No TRV			No TRV	No TRV
2-Butanone	78-93-3	No TRV			1.77E+02	1.77E+02
2-Butenaldehyde (2-Butenal)	4170-30-3	No TRV			No TRV	No TRV
2-Ethoxyethanol	110-80-5	No TRV			No TRV	No TRV
2-Heptanone	110-43-0	No TRV			No TRV	No TRV
2-Hexanone	591-78-6	No TRV			No TRV	No TRV
2-Methoxyethanol	109-86-4	No TRV			No TRV	No TRV
2-Methyl-2-propanol	75-65-0	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
2-Methyl-2-propenenitrile	126-98-7	No TRV			3.40E-02	3.40E-02
2-Methylaziridine	75-55-8	No TRV			No TRV	No TRV
2-Methylpropyl alcohol	78-83-1	No TRV			3.16E+01	3.16E+01
2-Pentanone	107-87-9	No TRV			No TRV	No TRV
2-Propanone (Acetone)	67-64-1	1.00E+01	d		1.00E+01	1.00E+01
2-Propene-1-ol	107-18-6	No TRV			4.80E-01	4.80E-01
2-Propyl alcohol	67-63-0	No TRV			No TRV	No TRV
3-Heptanone	106-35-4	No TRV			No TRV	No TRV
3-Methyl-1-butanol	123-51-3	No TRV			No TRV	No TRV
3-Methyl-2-butanone	563-80-4	No TRV			No TRV	No TRV
3-Pentanone	96-22-0	No TRV			No TRV	No TRV
4-Heptanone	123-19-3	No TRV			No TRV	No TRV
4-Methyl-2-pentanone	108-10-1	No TRV			2.50E+01	2.50E+01
4-Methyl-3-penten-2-one	141-79-7	No TRV			No TRV	No TRV
5-Methyl-2-hexanone	110-12-3	No TRV			No TRV	No TRV
Acetaldehyde	75-07-0	No TRV			No TRV	No TRV
Acetamide	60-35-5	No TRV			No TRV	No TRV
Acetic acid	64-19-7	No TRV			No TRV	No TRV
Acetic acid ethyl ester	141-78-6	No TRV			9.00E+01	9.00E+01
Acetic acid n-butyl ester	123-86-4	No TRV			No TRV	No TRV
Acetonitrile	75-05-8	No TRV			No TRV	No TRV
Acrolein	107-02-8	No TRV			No TRV	No TRV
Acrylonitrile	107-13-1	4.60E-01	d		No TRV	4.60E-01
Bis(isopropyl)ether	108-20-3	No TRV			No TRV	No TRV
Butane	106-97-8	No TRV			No TRV	No TRV
Carbon disulfide	75-15-0	No TRV			1.10E+01	1.10E+01
Cyanogen	460-19-5	No TRV			No TRV	No TRV
Cyclohexane	110-82-7	No TRV			No TRV	No TRV
Cyclohexanone	108-94-1	No TRV			No TRV	No TRV
Cyclohexene	110-83-8	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Cyclopentane	287-92-3	No TRV			No TRV	No TRV
Ethyl alcohol	64-17-5	No TRV			No TRV	No TRV
Ethyl ether	60-29-7	No TRV			5.00E+01	5.00E+01
Ethyl methacrylate	97-63-2	No TRV			No TRV	No TRV
Formaldehyde	50-00-0	2.30E+00	d		1.50E+00	2.30E+00
Formamide	75-12-7	No TRV			No TRV	No TRV
Formic acid	64-18-6	No TRV			No TRV	No TRV
Formic acid, methyl ester	107-31-3	No TRV			No TRV	No TRV
Glycidylaldehyde	765-34-4	No TRV			1.09E-01	1.09E-01
Methyl acetate	79-20-9	No TRV			No TRV	No TRV
Methyl alcohol	67-56-1	No TRV			5.00E+01	5.00E+01
Methyl isocyanate	624-83-9	No TRV			No TRV	No TRV
Methyl methacrylate	80-62-6	No TRV			1.36E+02	1.36E+02
Methyl tert-butyl ether	1634-04-4	No TRV			No TRV	No TRV
Methylacetylene	74-99-7	No TRV			No TRV	No TRV
Methylcyclohexane	108-87-2	No TRV			No TRV	No TRV
N,N-Dimethylacetamide	127-19-5	No TRV			No TRV	No TRV
n-Butyl alcohol	71-36-3	No TRV			1.25E+01	1.25E+01
n-Heptane	142-82-5	No TRV			No TRV	No TRV
n-Hexane	110-54-3	No TRV			No TRV	No TRV
Nitromethane	75-52-5	No TRV			No TRV	No TRV
n-Nonane	111-84-2	No TRV			No TRV	No TRV
n-Octane	111-65-9	No TRV			No TRV	No TRV
n-Pentane	109-66-0	No TRV			No TRV	No TRV
n-Propionaldehyde	123-38-6	No TRV			No TRV	No TRV
n-Propyl alcohol	71-23-8	No TRV			No TRV	No TRV
n-Valeraldehyde	110-62-3	No TRV			No TRV	No TRV
Oxirane	75-21-8	No TRV			No TRV	No TRV
p-Cymene	99-87-6	No TRV			No TRV	No TRV
Phosgene	75-44-5	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Propargyl alcohol	107-19-7	No TRV			5.00E-01	5.00E-01
Propionic acid	79-09-4	No TRV			No TRV	No TRV
Propionitrile	107-12-0	No TRV			No TRV	No TRV
Propylene gylcol monomethyl ether	107-98-2	No TRV			No TRV	No TRV
p-tert-Butyltoluene	98-51-1	No TRV			No TRV	No TRV
Triethylamine	121-44-8	No TRV			No TRV	No TRV
Trimethylamine	75-50-3	No TRV			No TRV	No TRV
Vinyl acetate	108-05-4	No TRV			No TRV	No TRV
Non-aromatic Halogenated Hydrocarbons						
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No TRV			No TRV	No TRV
1,1,1,2-Tetrachloroethane	630-20-6	No TRV			8.93E+00	8.93E+00
1,1,1-Trichloroethane	71-55-6	No TRV			1.00E+03	1.00E+03
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No TRV			No TRV	No TRV
1,1,2,2-Tetrachloroethane	79-34-5	No TRV			No TRV	No TRV
1,1,2,2-Tetrachloroethene	127-18-4	No TRV			1.40E+00	1.40E+00
1,1,2-Trichloroethane	79-00-5	No TRV			No TRV	No TRV
1,1,2-Trichloroethylene	79-01-6	No TRV			1.00E+00	1.00E+00
1,1-Dichloroethane	75-34-3	No TRV			No TRV	No TRV
1,1-Dichloroethene	75-35-4	No TRV			3.00E+01	3.00E+01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No TRV			No TRV	No TRV
1,2,3-Trichloropropane	96-18-4	No TRV			5.71E-01	5.71E-01
1,2-Dibromo-3-chloropropane	96-12-8	No TRV			No TRV	No TRV
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No TRV			No TRV	No TRV
1,2-Dichloroethane	107-06-2	No TRV			5.00E+01	5.00E+01
1,2-Dichloroethylene	540-59-0	No TRV			4.52E+01	4.52E+01
1,2-Dichloropropane	78-87-5	No TRV			No TRV	No TRV
1,3-Dichloropropene	542-75-6	No TRV			3.00E-01	3.00E-01
1,4-Dichloro-2-butene	764-41-0	No TRV			No TRV	No TRV
1-Chloroethene	75-01-4	No TRV			No TRV	No TRV
2,2-Dichloropropionic acid	75-99-0	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
2-Chloropropane	75-29-6	No TRV			No TRV	No TRV
3-Chloropropene (Allyl chloride)	107-05-1	No TRV			No TRV	No TRV
Bromochloromethane	74-97-5	No TRV			No TRV	No TRV
Bromodichloromethane	75-27-4	No TRV			1.79E+00	1.79E+00
Bromoethene	593-60-2	No TRV			No TRV	No TRV
Bromoform	75-25-2	No TRV			1.79E+00	1.79E+00
Bromomethane	74-83-9	No TRV			1.40E-01	1.40E-01
Carbon tetrachloride	56-23-5	No TRV			7.10E-02	7.10E-02
Chlorodibromomethane	124-48-1	No TRV			2.14E+00	2.14E+00
Chlorodifluoromethane	75-45-6	No TRV			No TRV	No TRV
Chloroethane	75-00-3	No TRV			No TRV	No TRV
Chloroform	67-66-3	6.00E+01	e		1.50E+01	6.00E+01
Chloromethane	74-87-3	No TRV			No TRV	No TRV
Chloropentafluoroethane	76-15-3	No TRV			No TRV	No TRV
cis-1,2-Dichloroethene	156-59-2	No TRV			No TRV	No TRV
cis-1,3-Dichloropropene	10061-01-5	No TRV			No TRV	No TRV
Cyanogen bromide	506-68-3	No TRV			4.40E+00	4.40E+00
Cyanogen chloride	506-77-4	No TRV			2.53E+00	2.53E+00
Dichlorodifluoromethane	75-71-8	No TRV			1.50E+00	1.50E+00
Dichlorofluoromethane	75-43-4	No TRV			No TRV	No TRV
Dichloromethane	75-09-2	No TRV			6.16E-01	6.16E-01
Difluorodibromomethane	75-61-6	No TRV			No TRV	No TRV
Hexafluoroacetone	684-16-2	No TRV			No TRV	No TRV
Iodomethane	74-88-4	No TRV			No TRV	No TRV
Methylene bromide	74-95-3	No TRV			No TRV	No TRV
Pentachloroethane	76-01-7	No TRV			No TRV	No TRV
trans-1,2-Dichloroethylene	156-60-5	No TRV			1.70E+00	1.70E+00
trans-1,3-Dichloropropene	10061-02-6	No TRV			No TRV	No TRV
Trichloroacetic acid	76-03-9	No TRV			No TRV	No TRV
Trichlorofluoroethane	27154-33-2	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Trichlorofluoromethane	75-69-4	No TRV			3.49E+01	3.49E+01
Trifluorobromomethane	75-63-8	No TRV			No TRV	No TRV
Dioxin and Furan Compounds						
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	No TRV			No TRV	No TRV
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No TRV			No TRV	No TRV
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No TRV			No TRV	No TRV
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	No TRV			No TRV	No TRV
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No TRV			No TRV	No TRV
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	No TRV			No TRV	No TRV
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No TRV			1.60E-04	1.60E-04
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	No TRV			No TRV	No TRV
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No TRV			No TRV	No TRV
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	No TRV			No TRV	No TRV
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No TRV			1.60E-04	1.60E-04
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No TRV			No TRV	No TRV
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No TRV			1.60E-05	1.60E-05
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	1.00E-06	d		1.00E-06	1.00E-06
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No TRV			No TRV	No TRV
Dibenzofuran	132-64-9	No TRV			No TRV	No TRV
Octachlorodibenzo(p)dioxin	3268-87-9	No TRV			No TRV	No TRV
Octachlorodibenzofuran	39001-02-0	No TRV			No TRV	No TRV
PCBs						
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No TRV			No TRV	No TRV
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No TRV			No TRV	No TRV
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	2.06E-03	f		No TRV	2.06E-03
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	2.06E-03	f		No TRV	2.06E-03
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No TRV			No TRV	No TRV
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No TRV			No TRV	No TRV
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No TRV			No TRV	No TRV
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No TRV			No TRV	No TRV
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	2.06E-03	f		No TRV	2.06E-03
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No TRV			No TRV	No TRV
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	2.06E-03	f		No TRV	2.06E-03
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No TRV			No TRV	No TRV
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No TRV			No TRV	No TRV
Polychlorinated biphenyls (PCBs)	1336-36-3	2.06E-03	f		6.80E-02[g]	2.06E-03
Phthalates						
Bis(2-ethylhexyl)phthalate	117-81-7	6.00E+01	d		1.83E+01	6.00E+01
Butylbenzylphthalate	85-68-7	No TRV			No TRV	No TRV
Di-n-butylphthalate	84-74-2	No TRV			5.50E+02	5.50E+02
Diethylphthalate	84-66-2	No TRV			4.58E+03	4.58E+03
Dimethylphthalate	131-11-3	No TRV			No TRV	No TRV
n-Dioctyl phthalate	117-84-0	7.50E+03	e		No TRV	7.50E+03
Light Polycyclic Aromatic Hydrocarbons						
2-Chloronapthalene	91-58-7	No TRV			2.50E+02	2.50E+02
2-Methylnaphthalene	91-57-6	No TRV			No TRV	No TRV
5-Nitroacenaphthene	602-87-9	No TRV			No TRV	No TRV
Acenaphthene	83-32-9	No TRV			1.75E+01	1.75E+01
Acenaphthylene	208-96-8	No TRV			No TRV	No TRV
Anthracene	120-12-7	No TRV			1.00E+02	1.00E+02
Fluorene	86-73-7	No TRV			1.25E+01	1.25E+01
Indene	95-13-6	No TRV			No TRV	No TRV
Naphthalene	91-20-3	No TRV			7.10E+00	7.10E+00
Phenanthrene	85-01-8	No TRV			No TRV	No TRV
Pyrene	129-00-0	No TRV			7.50E+00	7.50E+00
Heavy Polycyclic Aromatic Hydrocarbons[h]						
3-Methylcholanthrene	56-49-5	No TRV			No TRV	No TRV
5-Methylchrysene	3697-24-3	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Benzo(a)anthracene	56-55-3	1.67E-01	e		No TRV	1.67E-01
Benzo(a)pyrene	50-32-8	1.00E-01	e		1.00E+00	1.00E-01
Benzo(b)fluoranthene	205-99-2	No TRV			No TRV	No TRV
Benzo(e)pyrene	192-97-2	No TRV			No TRV	No TRV
Benzo(g,h,i)perylene	191-24-2	No TRV			No TRV	No TRV
Benzo(j)fluoranthene	205-82-3	No TRV			No TRV	No TRV
Benzo(k)fluoranthene	207-08-9	No TRV			No TRV	No TRV
Benzo[a,i]pyrene	191-30-0	No TRV			No TRV	No TRV
Chrysene	218-01-9	No TRV			No TRV	No TRV
Dibenzo(a,h)anthracene	53-70-3	2.00E-03	d		No TRV	2.00E-03
Dibenz[a,h]acridine	226-36-8	No TRV			No TRV	No TRV
Dibenz[a,j]acridine	224-42-0	No TRV			No TRV	No TRV
Dibenzo(a,e)fluoranthene	5385-75-1	No TRV			No TRV	No TRV
Dibenzo(a,h)fluoranthene	no cas #	No TRV			No TRV	No TRV
Dibenzo[a,e]pyrene	192-65-4	No TRV			No TRV	No TRV
Dibenzo[a,h]pyrene	189-64-0	No TRV			No TRV	No TRV
Dibenzo[a,i]pyrene	189-55-9	No TRV			No TRV	No TRV
Fluoranthene	206-44-0	No TRV			1.25E+01	1.25E+01
Hexachloronaphthalene	1335-87-1	No TRV			No TRV	No TRV
Indeno(1,2,3-cd)pyrene	193-39-5	No TRV			No TRV	No TRV
Octachloronaphthalene	2234-13-1	No TRV			No TRV	No TRV
Pentachloronaphthalene	1321-64-8	No TRV			No TRV	No TRV
Tetrachloronaphthalene	1335-88-2	No TRV			No TRV	No TRV
Trichloronaphthalene	1321-65-9	No TRV			No TRV	No TRV
Light Substituted Benzene Compounds						
1,2,3-Trichlorobenzene	87-61-6	No TRV			No TRV	No TRV
1,2,4-Trichlorobenzene	120-82-1	No TRV			No TRV	No TRV
1,2,4-Trimethyl benzene	95-63-6	No TRV			No TRV	No TRV
1,2-Dichlorobenzene	95-50-1	No TRV			8.57E+01	8.57E+01
1,3,5-Trimethyl benzene	108-67-8	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
1,3-Dichlorobenzene	541-73-1	No TRV			No TRV	No TRV
1,3-Dinitrobenzene	99-65-0	1.05E+00	d		1.10E-01	1.05E+00
1,4-Dichlorobenzene	106-46-7	No TRV			No TRV	No TRV
1,4-Dinitrobenzene	100-25-4	No TRV			No TRV	No TRV
2,4,5-Trichlorophenol	95-95-4	No TRV			1.00E+01	1.00E+01
2,4,6-Trichlorophenol	88-06-2	No TRV			No TRV	No TRV
2,4-Dichlorophenol	120-83-2	No TRV			3.00E-02	3.00E-02
2,4-Dimethylphenol	105-67-9	No TRV			5.00E-01	5.00E-01
2,4-Dinitrophenol	51-28-5	No TRV			2.00E-01	2.00E-01
2,4-Dinitrotoluene	121-14-2	7.00E-01	i		1.35E+01	7.00E-01
2,6-Dinitrotoluene	606-20-2	4.00E-01	i		7.00E-01	4.00E-01
2-Chlorophenol	95-57-8	No TRV			No TRV	No TRV
2-Chlorotoluene	95-49-8	No TRV			2.00E+01	2.00E+01
2-Nitrophenol	88-75-5	No TRV			No TRV	No TRV
4,6-Dinitro-o-cresol	534-52-1	No TRV			No TRV	No TRV
4-Chlorotoluene	106-43-4	No TRV			No TRV	No TRV
4-Nitrophenol	100-02-7	No TRV			No TRV	No TRV
alpha-Methylstyrene	98-83-9	No TRV			No TRV	No TRV
Aniline	62-53-3	No TRV			No TRV	No TRV
Benzotrichloride	98-07-7	No TRV			No TRV	No TRV
Benzyl chloride	100-44-7	No TRV			No TRV	No TRV
Bromobenzene	108-86-1	No TRV			No TRV	No TRV
Chlorobenzene	108-90-7	No TRV			1.90E+01	1.90E+01
Cumene	98-82-8	No TRV			1.10E+02	1.10E+02
m-Cresol	108-39-4	No TRV			5.00E+00	5.00E+00
n-Butyl benzene	104-51-8	No TRV			No TRV	No TRV
Nitrobenzene	98-95-3	No TRV			4.60E-02	4.60E-02
n-Propyl benzene	103-65-1	No TRV			No TRV	No TRV
o-Cresol	95-48-7	No TRV			5.00E+00	5.00E+00
o-Dinitrobenzene	528-29-0	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
o-Nitroaniline	88-74-4	No TRV			No TRV	No TRV
o-Toluidine	95-53-4	No TRV			No TRV	No TRV
p-Chloroaniline	106-47-8	No TRV			1.25E+00	1.25E+00
p-Cresol	106-44-5	No TRV			No TRV	No TRV
Phenol	108-95-2	No TRV			6.00E+01	6.00E+01
p-Nitrochlorobenzene	100-00-5	No TRV			No TRV	No TRV
p-Toluidine	106-49-0	No TRV			No TRV	No TRV
sec-Butyl benzene	135-98-8	No TRV			No TRV	No TRV
tert-Butyl benzene	98-06-6	No TRV			No TRV	No TRV
Toluene-2,6-diamine	823-40-5	No TRV			No TRV	No TRV
Trimethyl benzene	25551-13-7	No TRV			No TRV	No TRV
Other Light Semivolatile Compounds						
1,1'-Biphenyl	92-52-4	No TRV			5.00E+00	5.00E+00
1,1-Dimethylhydrazine	57-14-7	No TRV			No TRV	No TRV
1,2-Dimethylhydrazine	540-73-8	No TRV			No TRV	No TRV
1,2-Diphenylhydrazine	122-66-7	No TRV			No TRV	No TRV
1,3-Propane sultone	1120-71-4	No TRV			No TRV	No TRV
2,4-Toluene diisocyante	584-84-9	No TRV			No TRV	No TRV
2-Chloroacetophenone	532-27-4	No TRV			No TRV	No TRV
2-Propenoic acid	79-10-7	No TRV			5.30E+00	5.30E+00
4,4-Methylenedianiline	101-77-9	No TRV			No TRV	No TRV
Acetophenone	98-86-2	No TRV			4.23E+01	4.23E+01
Benzoic acid	65-85-0	No TRV			4.00E+00	4.00E+00
Bis(2-chloroethoxy)methane	111-91-1	No TRV			No TRV	No TRV
Bis(2-chloroethyl) ether	111-44-4	No TRV			No TRV	No TRV
Chlorocyclopentadiene	41851-50-7	No TRV			No TRV	No TRV
Cyclohexanol	108-93-0	No TRV			No TRV	No TRV
Dichloroisopropyl ether	108-60-1	No TRV			No TRV	No TRV
Dichloromethyl ether	542-88-1	No TRV			No TRV	No TRV
Dichloropentadiene	no cas #	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Dimethyl sulfate	77-78-1	No TRV			No TRV	No TRV
Dimethylaniline	121-69-7	No TRV			2.23E-01	2.23E-01
di-n-Propylnitrosamine	621-64-7	No TRV			No TRV	No TRV
Diphenyl ether	101-84-8	No TRV			No TRV	No TRV
Epichlorohydrin	106-89-8	No TRV			No TRV	No TRV
Ethyl Carbamate (Urethane)	51-79-6	No TRV			No TRV	No TRV
Ethyl methanesulfonate	62-50-0	No TRV			No TRV	No TRV
Ethylene dibromide	106-93-4	No TRV			No TRV	No TRV
Ethylene glycol	107-21-1	No TRV			2.00E+01	2.00E+01
Ethylene glycol monobutyl ether	111-76-2	No TRV			5.10E-01	5.10E-01
Ethylene glycol monoethyl ether acetate	111-15-9	No TRV			No TRV	No TRV
Ethylene thiourea	96-45-7	No TRV			2.50E-02	2.50E-02
Furfural	98-01-1	No TRV			7.90E-01	7.90E-01
Maleic hydrazide	123-33-1	No TRV			5.00E+01	5.00E+01
Malononitrile	109-77-3	No TRV			No TRV	No TRV
Methyl styrene (mixed isomers)	25013-15-4	No TRV			No TRV	No TRV
Methylhydrazine	60-34-4	No TRV			No TRV	No TRV
N,N-Diphenylamine	122-39-4	No TRV			2.50E-01	2.50E-01
Nitric acid, propyl ester	627-13-4	No TRV			No TRV	No TRV
N-Nitrosodi-n-butylamine	924-16-3	No TRV			No TRV	No TRV
N-Nitrosomorpholine	59-89-2	No TRV			No TRV	No TRV
N-Nitroso-N,N-dimethylamine	62-75-9	No TRV			No TRV	No TRV
o-Anisidine	90-04-0	No TRV			No TRV	No TRV
Oxalic acid	144-62-7	No TRV			No TRV	No TRV
Phthalic anhydride	85-44-9	No TRV			1.56E+02	1.56E+02
p-Phthalic acid	100-21-0	No TRV			No TRV	No TRV
Pyridine	110-86-1	No TRV			1.00E-01	1.00E-01
Quinoline	91-22-5	No TRV			No TRV	No TRV
Quinone	106-51-4	No TRV			No TRV	No TRV
Safrole	94-59-7	No TRV			No TRV	No TRV

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Tetrahydrofuran	109-99-9	No TRV			No TRV	No TRV
Other Heavy Semivolatile Compounds						
1,2,4,5-Tetrachlorobenzene	95-94-3	No TRV			3.40E-02	3.40E-02
1,3,5-Trinitrobenzene	99-35-4	No TRV			6.70E+00	6.70E+00
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No TRV			No TRV	No TRV
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No TRV			2.00E-01	2.00E-01
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No TRV			No TRV	No TRV
3,3-Dichlorobenzidine	91-94-1	No TRV			No TRV	No TRV
3,3'-Dimethoxybenzidine	119-90-4	No TRV			No TRV	No TRV
4-Bromophenylphenyl ether	101-55-3	No TRV			No TRV	No TRV
Ammonium perfluorooctanoate	3825-26-1	No TRV			No TRV	No TRV
Azobenzene	103-33-3	No TRV			No TRV	No TRV
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No TRV			No TRV	No TRV
Chlorobenzilate	510-15-6	No TRV			No TRV	No TRV
Dibutylphosphate	107-66-4	No TRV			No TRV	No TRV
Dimethyl aminoazobenzene	60-11-7	No TRV			No TRV	No TRV
Hexachlorobenzene	118-74-1	1.60E+00	d		8.00E-03	1.60E+00
Hexachlorobutadiene	87-68-3	2.00E-01	d		No TRV	2.00E-01
Hexachlorocyclopentadiene	77-47-4	3.80E+00	d		7.00E-01	3.80E+00
Hexachloroethane	67-72-1	No TRV			1.00E-01	1.00E-01
Hexachlorophene	70-30-4	5.60E+00			7.50E-02	5.60E+00
Hexamethylene-1,5-diisocyanate	822-06-0	No TRV			No TRV	No TRV
Mirex	2385-85-5	No TRV			7.00E-02	7.00E-02
Nitrofen	1836-75-5	No TRV			No TRV	No TRV
Pentachlorobenzene	608-93-5	7.25E+00	d		8.30E-01	7.25E+00
Pentachloronitrobenzene	82-68-8	4.58E+02	e		7.50E-02	4.58E+02
Pentachlorophenol	87-86-5	3.00E-01	d		2.40E-01	3.00E-01
Picric acid	88-89-1	No TRV			No TRV	No TRV
Pronamide	23950-58-5	No TRV			7.50E-01	7.50E-01
Strychnine	57-24-9	No TRV			2.50E-01	2.50E-01

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Terphenyls	26140-60-3	No TRV			No TRV	No TRV
Tributyl phosphate	126-73-8	No TRV			No TRV	No TRV
Trifluralin	1582-09-8	No TRV			7.50E-02	7.50E-02
Triphenylamine	603-34-9	No TRV			No TRV	No TRV
Herbicides and Organochlorinated Pesticides						
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	93-76-5	No TRV			3.00E+00	3.00E+00
2,4-D	94-75-7	No TRV			No TRV	No TRV
4,4'-DDD	72-54-8	No TRV			No TRV	No TRV
4,4'-DDE	72-55-9	1.00E+00	d		No TRV	1.00E+00
4,4'-DDT	50-29-3	No TRV			8.00E-01	8.00E-01
Aldrin	309-00-2	No TRV			2.00E-01	2.00E-01
alpha-BHC	319-84-6	No TRV			No TRV	No TRV
beta-BHC	319-85-7	No TRV			No TRV	No TRV
Captan	133-06-2	No TRV			No TRV	No TRV
Chlordane	57-74-9	No TRV			4.58E+00	4.58E+00
delta-BHC	319-86-8	No TRV			No TRV	No TRV
Dieldrin	60-57-1	No TRV			2.00E-02	2.00E-02
Endothall	145-73-3	No TRV			2.00E+00	2.00E+00
Endrin	72-20-8	No TRV			9.20E-02	9.20E-02
gamma-BHC (Lindane)	58-89-9	No TRV			8.00E+00	8.00E+00
Heptachlor	76-44-8	2.50E-03	d		1.00E-01	2.50E-03
Isodrin	465-73-6	No TRV			No TRV	No TRV
Methoxychlor	72-43-5	No TRV			5.01E+00	5.01E+00
Silvex (2,4,5-TP)	93-72-1	No TRV			7.50E-01	7.50E-01
Toxaphene	8001-35-2	No TRV			8.00E+00	8.00E+00
Inorganics						
Metals						
Aluminum	7429-90-5	1.93E+00	d		1.93E+00	1.93E+00
Antimony	7440-36-0	6.60E-02	d		1.25E-01	6.60E-02
Arsenic	7440-38-2	1.25E+00	i		1.26E-01	1.25E+00

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Barium	7440-39-3	5.10E-01	d		5.06E+00	5.10E-01
Beryllium	7440-41-7	6.60E-01	d		6.60E-01	6.60E-01
Bismuth	7440-69-9	No TRV			No TRV	No TRV
Boron	7440-42-8	No TRV			2.80E+01	2.80E+01
Cadmium	7440-43-9	2.52E-02	e		1.00E+00	2.52E-02
Calcium	7440-70-2	No TRV			No TRV	No TRV
Chromium (and VI)	7440-47-3	3.50E+00	d		2.74E+03	3.50E+00
Cobalt	7440-48-4	No TRV			1.00E-01	1.00E-01
Copper	7440-50-8	1.20E+01	j		1.17E+01	1.20E+01
Iron	7439-89-6	No TRV			No TRV	No TRV
Lead	7439-92-1	3.75E-02	e		8.00E+00	3.75E-02
Lithium	7439-93-2	No TRV			9.39E+00	9.39E+00
Magnesium	7439-95-4	No TRV			No TRV	No TRV
Manganese	7439-96-5	No TRV			8.80E+01	8.80E+01
Mercury	7439-97-6	1.01E+00	j		1.01E+00	1.01E+00
Molybdenum	7439-98-7	No TRV			2.58E-01	2.58E-01
Nickel	7440-02-0	5.00E+01	d		4.00E+01	5.00E+01
Potassium	7440-09-7	No TRV			No TRV	No TRV
Rhodium	7440-16-6	No TRV			No TRV	No TRV
Selenium	7782-49-2	7.60E-02	e		2.00E-01	7.60E-02
Silicon	7440-21-3	No TRV			No TRV	No TRV
Silver	7440-22-4	3.75E-01	e		No TRV	3.75E-01
Sodium	7440-23-5	No TRV			No TRV	No TRV
Strontium	7440-24-6	No TRV			2.63E+02	2.63E+02
Tantalum	7440-25-7	No TRV			No TRV	No TRV
Thallium	7440-28-0	1.31E-02	d		7.40E-03	1.31E-02
Tin	7440-31-5	No TRV			No TRV	No TRV
Tungsten	7440-33-7	No TRV			No TRV	No TRV
Uranium	7440-61-1	No TRV			3.07E+00	3.07E+00
Vanadium	7440-62-2	No TRV			2.10E-01	2.10E-01

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)
Yttrium	7440-65-5	No TRV			No TRV	No TRV
Zinc	7440-66-6	1.04E+01	e		1.60E+02	1.04E+01
Zirconium	7440-67-7	No TRV			No TRV	No TRV
Non-metals and Ions						
Ammonia/Ammonium	7664-41-7	No TRV			No TRV	No TRV
Bromide	24959-67-9	No TRV			No TRV	No TRV
Chloride	16887-00-6	No TRV			No TRV	No TRV
Cyanide	57-12-5	2.40E+01	d		6.87E+01	2.40E+01
Fluoride	16984-48-8	No TRV			3.14E+01	3.14E+01
Hydroxide	14280-30-9	No TRV			No TRV	No TRV
Iodine	7553-56-2	No TRV			No TRV	No TRV
Nitrate	14797-55-8	No TRV			No TRV	No TRV
Nitrite	14797-65-0	No TRV			No TRV	No TRV
Phosphate	14265-44-2	No TRV			No TRV	No TRV
Phosphorus	7723-14-0	No TRV			No TRV	No TRV
Sulfate	14808-79-8	No TRV			No TRV	No TRV
Total Sulfur	63705-05-5	No TRV			No TRV	No TRV
Criteria Pollutants						
Carbon dioxide	124-38-9	No TRV			No TRV	No TRV
Nitrogen dioxide	10102-44-0	No TRV			No TRV	No TRV
Ozone	10028-15-6	No TRV			No TRV	No TRV
Particulate matter	no cas #	No TRV			No TRV	No TRV
Sulfur dioxide	7446-09-5	No TRV			No TRV	No TRV
Radionuclides	TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for mammals from all radionuclides combined cannot exceed 0.1 rad/d.					

TRV = toxicity reference value

[a] Published in Appendix E of EPA (1999), Table E-7.

[b] Published in Table C3-5 of this work plan

Table C3-6. Toxicity Reference Values (TRVs) for Mammals

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a] (mg/kg/d)	Notes	Ecology Guidance TRV (mg/kg/d)	SAIC Compiled TRV[b] (mg/kg/d)	Recommended TRV[c] (mg/kg/d)

[c] Order of preference is EPA (1999), then SAIC compilation

[d] Toxicity to rat

[e] Toxicity to mouse

[f] Based on toxicity of 3,4,5-hexachlorobiphenyl to mink

[g] Toxicity of Aroclor 1254 to oldfield mouse used as representative of PCB mixtures

[h] Total exposure to all high molecular weight polycylic aromatic hydrocarbons combined is limited to 0.1 mg/kg/d.

[i] Toxicity to dog

[j] Toxicity to mink

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Organic Compounds														
Aromatic Halogenated Hydrocarbons														
4-Chloro-3-methylphenol	59-50-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,4,6-Tetrachlorophenol	58-90-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Aromatic Nonhalogenated Hydrocarbons														
2-Nitrotoluene	88-72-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
4-Nitrobiphenyl	92-93-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzaldehyde	100-52-7	Rat	3.50E-01	2.60E+01	mg/m3/5H/17W-I	1.06E+02	2.60E+01	Subchronic	TCLo	Blood	RTECS	1.00E-01	1.00E-01	2.60E-01
Benzene	71-43-2	Mouse	3.00E-02	5.00E+00	ppm/6-15D	7.81E+01	1.60E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.60E-01
Benzyl alcohol	100-51-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ethyl benzene	100-41-4	Rabbit	3.80E+00	1.00E+00	g/m3/24H	1.06E+02	1.00E+00	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.00E-02
m-Xylene	108-38-3	Mouse	3.00E-02	5.00E+02	mg/m3/12H/6-15D	1.06E+02	5.00E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	5.00E+00
o-Xylene	95-47-6	Rat	3.50E-01	1.50E+02	mg/m3/24H/7-14D	1.06E+02	1.50E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.50E+00
p-Xylene	106-42-3	Rat	3.50E-01	1.50E+02	mg/m3/24H/7-14D	1.06E+02	1.50E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.50E+00
Styrene	100-42-5	Mouse	3.00E-02	9.50E+03	mg/m3/4H	1.04E+02	9.50E+03	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	9.50E+00
Toluene	108-88-3	Rabbit	3.80E+00	1.00E+02	ppm/6H/6-18D	9.21E+01	3.77E+02	Subchronic	TDLo	Reproduction	RTECS	1.00E-01	1.00E-02	3.77E-01
Non-aromatic Nonhalogenated Hydrocarbons														
1,2-Epoxybutane	106-88-7	Mouse	3.00E-02	2.60E+01	mg/m3/6H/5D/2yr	7.21E+01	2.60E+01	Chronic	TCLo	Nasal tissue	IRIS	1.00E+00	1.00E-01	2.60E+00
1,3-Butadiene	106-99-0	Mouse	3.00E-02	1.00E+03	ppm/6H/6-15D	5.41E+01	2.21E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.21E+01
1,4-Dioxane	123-91-1	Rat	3.50E-01	2.05E+04	ug/m3/13W-I	8.81E+01	2.05E+01	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.05E+00
1-Methylpropyl alcohol	78-92-2	Rat	3.50E-01	5.00E+03	ppm/7H/1-19D	7.41E+01	1.52E+04	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.52E+02
1-Nitropropane	108-03-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,2,4-Trimethylpentane	540-84-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Butanone	78-93-3	Rat	3.50E-01	1.00E+03	ppm/7H/6-15D	7.21E+01	2.95E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.95E+01

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
2-Butenaldehyde (2-Butenal)	4170-30-3	Rat	3.50E-01	2.00E+01	mg/m3/7H/8W-I	7.01E+01	2.00E+01	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.00E+00
2-Ethoxyethanol	110-80-5	Rabbit	3.80E+00	1.03E+02	ppm	9.01E+01	3.80E+02	Chronic	--	Organ dysfunction	IRIS	1.00E+00	1.00E-01	3.80E+01
2-Heptanone	110-43-0	Rat	3.50E-01	4.00E+03	ppm/4H	1.14E+02	1.87E+04	Acute	TCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.87E+02
2-Hexanone	591-78-6	Rat	3.50E-01	8.00E+03	ppm/4H	1.00E+02	3.28E+04	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	3.28E+01
2-Methoxyethanol	109-86-4	Rat	3.50E-01	3.00E+02	ppm/6H/13W-I	7.60E+01	9.33E+02	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	9.33E+01
2-Methyl-2-propanol	75-65-0	Rat	3.50E-01	2.00E+03	ppm/7H/1-19D	7.41E+01	6.06E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	6.06E+01
2-Methyl-2-propenenitrile	126-98-7	Rat	3.50E-01	1.00E+02	ppm/6H/6-20D	6.71E+01	2.74E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.74E+00
2-Methylaziridine	75-55-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Methylpropyl alcohol	78-83-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Pentanone	107-87-9	Rat	3.50E-01	2.00E+03	ppm/4H	8.61E+01	7.05E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	7.05E+01
2-Propanone (Acetone)	67-64-1	Rat	3.50E-01	1.99E+02	mg/m3/8H/45D-I	5.81E+01	3.15E+01	Chronic	TCLo	Behavioral	RTECS	1.00E+00	1.00E+00	3.15E+01
2-Propene-1-ol	107-18-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Propyl alcohol	67-63-0	Rat	3.50E-01	3.50E+03	ppm/7H/1-19D	6.01E+01	8.60E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	8.60E+01
3-Heptanone	106-35-4	Rat	3.50E-01	2.00E+03	ppm/4H	1.14E+02	9.34E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	9.34E+01
3-Methyl-1-butanol	123-51-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
3-Methyl-2-butanone	563-80-4	Rat	3.50E-01	5.70E+03	ppm/4H	8.61E+01	2.01E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.01E+02
3-Pentanone	96-22-0	Rat	3.50E-01	8.00E+03	ppm/4H	8.61E+01	2.82E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.82E+02
4-Heptanone	123-19-3	Rat	3.50E-01	2.69E+03	ppm/6H	1.14E+02	1.26E+04	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.26E+01
4-Methyl-2-pentanone	108-10-1	Mouse	3.00E-02	3.00E+03	ppm/6H/6-15D	1.00E+02	1.23E+04	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.23E+02
4-Methyl-3-penten-2-one	141-79-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
5-Methyl-2-hexanone	110-12-3	Rat	3.50E-01	1.00E+03	ppm/6H/16D-I	1.14E+02	4.67E+03	Subchronic	TCLo	Organ dysfunction	RTECS	1.00E-01	1.00E-01	4.67E+01
Acetaldehyde	75-07-0	Rat	3.50E-01	1.50E+02	ppm	4.45E+01	2.73E+02	Chronic	--	Nasal tissue	IRIS	1.00E+00	1.00E-01	2.73E+01
Acetamide	60-35-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Acetic acid	64-19-7	Rat	3.50E-01	1.60E+04	ppm/4H	6.01E+01	3.93E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	3.93E+02
Acetic acid ethyl ester	141-78-6	Cat	4.50E+00	6.10E+01	gm/m3	8.81E+01	6.10E+04	Acute	LCLo	Mortality	RTECS	1.00E+00	1.00E-01	6.10E+03
Acetic acid n-butyl ester	123-86-4	Rat	3.50E-01	1.50E+03	ppm/7H/7-16D	1.16E+02	7.13E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	7.13E+01
Acetonitrile	75-05-8	Mouse	3.00E-02	8.00E+02	ppm/6H/13W-I	4.11E+01	1.34E+03	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	1.34E+02

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Acrolein	107-02-8	Rat	3.50E-01	4.90E+00	ppb/6H/13W-I	5.61E+01	1.12E+01	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	1.12E+00
Acrylonitrile	107-13-1	Rat	3.50E-01	2.50E+01	ppm/6H/6-20D	5.31E+01	5.43E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	5.43E-01
Bis(isopropyl)ether	108-20-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Butane	106-97-8	Rat	3.50E-01	6.58E+02	gm/m3/4H	5.81E+01	6.58E+05	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	6.58E+02
Carbon disulfide	75-15-0	Rat	3.50E-01	3.00E+01	ug/m3/8H/1-22D	7.61E+01	3.00E-02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	3.00E-04
Cyanogen	460-19-5	Rat	3.50E-01	2.50E+01	ppm/6H/26W-I	5.20E+01	5.32E+01	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	5.32E+00
Cyclohexane	110-82-7	Mouse	3.00E-02	7.00E+01	gm/m3/2H	8.42E+01	7.00E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	7.00E+02
Cyclohexanone	108-94-1	Rat	3.50E-01	1.05E+02	mg/m3/4H/1-20D	9.82E+01	1.05E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.05E+00
Cyclohexene	110-83-8	Rat	3.50E-01	6.37E+03	ppm/4H	8.21E+01	2.14E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.14E+02
Cyclopentane	287-92-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ethyl alcohol	64-17-5	Rat	3.50E-01	2.00E+04	ppm/7H/1-22D	4.61E+01	3.77E+04	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	3.77E+03
Ethyl ether	60-29-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ethyl methacrylate	97-63-2	Rat	3.50E-01	8.30E+03	ppm/4H	1.14E+02	3.87E+04	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	3.87E+01
Formaldehyde	50-00-0	Rat	3.50E-01	1.20E+01	ug/m3/24H/15D	3.00E+01	1.20E-02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.20E-04
Formamide	75-12-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Formic acid	64-18-6	Rat	3.50E-01	6.40E+01	ppm/6H/13W-I	4.60E+01	1.20E+02	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	1.20E+01
Formic acid, methyl ester	107-31-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Glycidylaldehyde	765-34-4	Rat	3.50E-01	4.00E+01	ppm/4H/12W-I	7.21E+01	1.18E+02	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	1.18E+01
Methyl acetate	79-20-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Methyl alcohol	67-56-1	Monkey	5.00E+00	1.00E+03	ppm	3.20E+01	1.31E+03	Chronic	LCLo	Mortality	RTECS	1.00E+00	1.00E-01	1.31E+02
Methyl isocyanate	624-83-9	Mouse	3.00E-02	1.00E+00	ppm/6H/1417D	5.71E+01	2.33E+00	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.33E-02
Methyl methacrylate	80-62-6	Rat	3.50E-01	3.50E+01	ppm/6H/5d/wk/2yr	1.00E+02	1.43E+02	Chronic	TCLo	Nasal tissue	IRIS	1.00E+00	1.00E-01	1.43E+01
Methyl tert-butyl ether	1634-04-4	Rat	3.50E-01	8.00E+03	ppm/6H	8.82E+01	2.88E+04	Acute	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.88E+02
Methylacetylene	74-99-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m³)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m³) = Benchmark x DCF x ECF
Methylcyclohexane	108-87-2	Rabbit	3.80E+00	1.01E+04	ppm/6H/2W-I	9.82E+01	4.04E+04	Subchronic	TCLo	Mortality	RTECS	1.00E-01	1.00E-01	4.04E+02
N,N-Dimethylacetamide	127-19-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
n-Butyl alcohol	71-36-3	Rat	3.50E-01	6.00E+03	ppm/7H/1-19D	7.41E+01	1.82E+04	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.82E+02
n-Heptane	142-82-5	Rat	3.50E-01	4.00E+03	ppm/6H/28D-I	1.00E+02	1.64E+04	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	1.64E+03
n-Hexane	110-54-3	Rat	3.50E-01	1.00E+03	ppm/6H/8-16D	8.62E+01	3.52E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	3.52E+01
Nitromethane	75-52-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
n-Nonane	111-84-2	Rat	3.50E-01	1.60E+03	ppm/6H/13W-I	1.28E+02	8.39E+03	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	8.39E+02
n-Octane	111-65-9	Rat	3.50E-01	1.18E+02	gm/m3/4H	1.14E+02	1.18E+05	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.18E+02
n-Pentane	109-66-0	Mouse	3.00E-02	3.25E+02	gm/m3/2H	7.22E+01	3.25E+05	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	3.25E+03
n-Propionaldehyde	123-38-6	Rat	3.50E-01	8.00E+03	ppm/4H	5.81E+01	1.90E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.90E+02
n-Propyl alcohol	71-23-8	Rat	3.50E-01	4.00E+03	ppm/4H	6.01E+01	9.83E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	9.83E+01
n-Valeraldehyde	110-62-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Oxirane	75-21-8	Rat	3.50E-01	3.60E+03	ug/m3/24H/60D	4.41E+01	3.60E+00	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	3.60E-01
p-Cymene	99-87-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Phosgene	75-44-5	Rat	3.50E-01	5.00E+02	ppb/6H/12W-I	9.89E+01	2.02E+00	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.02E-01
Propargyl alcohol	107-19-7	Rat	3.50E-01	7.00E+00	mg/m3/4H/12W-I	5.61E+01	7.00E+00	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	7.00E-01
Propionic acid	79-09-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Propionitrile	107-12-0	Rat	3.50E-01	1.00E+02	ppm/6H/6-20D	5.51E+01	2.25E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.25E+00
Propylene gylcol monomethyl ether	107-98-2	Rat	3.50E-01	1.00E+03	ppm	9.01E+01	3.69E+03	Chronic	--	Sedation	IRIS	1.00E+00	1.00E-01	3.69E+02
p-tert-Butyltoluene	98-51-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Triethylamine	121-44-8	Rat	3.50E-01	1.00E+03	ppm/4H	1.01E+02	4.14E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	4.14E+01
Trimethylamine	75-50-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Vinyl acetate	108-05-4	Rat	3.50E-01	2.50E+03	ppm/4H/1Y-I	8.61E+01	8.80E+03	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	8.80E+02
Non-aromatic Halogenated Hydrocarbons														
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,1,1,2-Tetrachloroethane	630-20-6	Rat	3.50E-01	2.10E+03	ppm/4H	1.68E+02	1.44E+04	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.44E+01

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
1,1,1-Trichloroethane	71-55-6	Guinea pig	3.50E-01	6.50E+02	ppm/7H/58D-I	1.33E+02	3.55E+03	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	3.55E+02
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,1,2,2-Tetrachloroethane	79-34-5	Rat	3.50E-01	1.00E+03	ppm/4H	1.68E+02	6.87E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	6.87E+01
1,1,2,2-Tetrachloroethene	127-18-4	Rat	3.50E-01	3.00E+02	ppm/7H/6-15D	1.66E+02	2.03E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.03E+01
1,1,2-Trichloroethane	79-00-5	Rat	3.50E-01	5.00E+02	ppm/4H	1.33E+02	2.73E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.73E+01
1,1,2-Trichloroethylene	79-01-6	Rat	3.50E-01	1.00E+02	ppm/4H/6-22D	1.31E+02	5.37E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	5.37E+00
1,1-Dichloroethane	75-34-3	Rat	3.50E-01	6.00E+03	ppm/7H/6-15D	9.90E+01	2.43E+04	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.43E+02
1,1-Dichloroethene	75-35-4	Rat	3.50E-01	5.50E+01	ppm/6H/55D	9.70E+01	2.18E+02	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	2.18E+01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	Rat	3.50E-01	2.00E+03	ppm/6H/2W-I	1.87E+02	1.53E+04	Subchronic	TCLo	Organ dysfunction	RTECS	1.00E-01	1.00E-01	1.53E+02
1,2,3-Trichloropropane	96-18-4	Rat	3.50E-01	2.00E+00	mg/m3/24H/94D-C	1.47E+02	2.00E+00	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.00E-01
1,2-Dibromo-3-chloropropane	96-12-8	Rabbit	3.80E+00	1.00E-01	ppm	2.36E+02	9.60E-01	Chronic	--	Reproduction	IRIS	1.00E+00	1.00E-01	9.60E-02
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	Guinea pig	3.50E-01	2.00E+05	ppm/8H	1.71E+02	1.40E+06	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.40E+04
1,2-Dichloroethane	107-06-2	Rat	3.50E-01	2.00E+02	ppm/7H/6W-I	9.90E+01	8.09E+02	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	8.09E+01
1,2-Dichloroethylene	540-59-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2-Dichloropropane	78-87-5	Rat	3.50E-01	1.00E+03	ppm/7H/20W-I	1.13E+02	4.62E+03	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	4.62E+02
1,3-Dichloropropene	542-75-6	Mouse	3.00E-02	5.00E+00	ppm	1.11E+02	2.27E+01	Chronic	--	Nasal tissue	IRIS	1.00E+00	1.00E-01	2.27E+00
1,4-Dichloro-2-butene	764-41-0	Rat	3.50E-01	8.70E+03	ug/m3/17W-I	1.25E+02	8.70E+00	Chronic	TCLo	Neurological	RTECS	1.00E-01	1.00E-01	8.70E-02
1-Chloroethene	75-01-4	Rat	3.50E-01	1.00E+02	ppm/6H/26W	6.25E+01	2.56E+02	Chronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.56E+00
2,2-Dichloropropionic acid	75-99-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Chloropropane	75-29-6	Rat	3.50E-01	2.36E+02	gm/m3/30M/1W-I	7.86E+01	2.36E+05	Subchronic	TCLo	Organ dysfunction	RTECS	1.00E-01	1.00E-01	2.36E+03
3-Chloropropene (allyl chloride)	107-05-1	Rat	3.50E-01	3.00E+02	ppm/7H/6-15D	7.65E+01	9.39E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	9.39E+00
Bromochloromethane	74-97-5	Rat	3.50E-01	5.00E+02	ppm/6H/26W-I	1.29E+02	2.64E+03	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	2.64E+02
Bromodichloromethane	75-27-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Bromoethene	593-60-2	Rat	3.50E-01	9.70E+00	ppm	1.07E+02	4.24E+01	Chronic	--	Organ dysfunction	IRIS	1.00E+00	1.00E-01	4.24E+00

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Bromoform	75-25-2	Mammal	Unspecified	1.21E+02	mg/m3	2.53E+02	1.21E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.21E-01
Bromomethane	74-83-9	Mouse	3.00E-02	2.00E+02	ppm/6H/14D-I	9.50E+01	7.77E+02	Subchronic	TCLo	Mortality	RTECS	1.00E-01	1.00E-01	7.77E+00
Carbon tetrachloride	56-23-5	Rat	3.50E-01	2.50E+02	ppm/8H/10-15D	1.54E+02	1.57E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.57E+01
Chlorodibromomethane	124-48-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Chlorodifluoromethane	75-45-6	Rat	3.50E-01	5.00E+00	ppm/6-15D	8.65E+01	1.77E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.77E-01
Chloroethane	75-00-3	Rat	3.50E-01	6.00E+01	mg/m3/4H	6.45E+01	6.00E+01	Acute	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	6.00E-01
Chloroform	67-66-3	Rat	3.50E-01	2.01E+04	ug/m3/1H/7-14D	1.19E+02	2.01E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.01E-01
Chloromethane	74-87-3	Mouse	3.00E-02	5.00E+02	ppm/6H/6-17D	5.05E+01	1.03E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.03E+01
Chloropentafluoroethane	76-15-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
cis-1,2-Dichloroethene	156-59-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
cis-1,3-Dichloropropene	10061-01-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Cyanogen bromide	506-68-3	Mouse	3.00E-02	5.00E+02	mg/m3/10M	1.06E+02	5.00E+02	Chronic	LCLo	Mortality	RTECS	1.00E+00	1.00E-01	5.00E+01
Cyanogen chloride	506-77-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dichlorodifluoromethane	75-71-8	Rat	3.50E-01	4.00E+03	mg/m3/90D-C	1.21E+02	4.00E+03	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	4.00E+02
Dichlorofluoromethane	75-43-4	Rat	3.50E-01	1.00E+04	ppm/6H	1.03E+02	4.21E+04	Acute	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	4.21E+02
Dichloromethane	75-09-2	Rat	3.50E-01	1.25E+03	ppm/7H/6-15D	8.49E+01	4.34E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	4.34E+01
Difluorodibromomethane	75-61-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Hexafluoroacetone	684-16-2	Rat	3.50E-01	1.20E+01	ppm/6H/30D	1.66E+02	8.15E+01	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	8.15E+00
Iodomethane	74-88-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Methylene bromide	74-95-3	Rat	3.50E-01	4.00E+01	gm/m3/2H	1.74E+02	4.00E-02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	4.00E-05
Pentachloroethane	76-01-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
trans-1,2-Dichloroethene	156-60-5	Rat	3.50E-01	6.00E+03	ppm/6H	9.70E+01	2.38E+04	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	2.38E+03
trans-1,3-Dichloropropene	10061-02-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Trichloroacetic acid	76-03-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Trichlorofluoroethane	27154-33-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Trichlorofluoromethane	75-69-4	Rat	3.50E-01	1.20E+04	ppm/4H/10D-I	1.37E+02	6.74E+04	Subchronic	TCLo	Organ dysfunction	RTECS	1.00E-01	1.00E-01	6.74E+02

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Trifluorobromomethane	75-63-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dioxin and Furan Compounds														
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenzofuran	132-64-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Octachlorodibenzo(p)dioxin	3268-87-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Octachlorodibenzofuran	39001-02-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
PCBs														
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Polychlorinated biphenyls (PCBs)[k]	1336-36-3	Rat	3.50E-01	9.30E+02	ug/m3/8H/20W-I	--	9.30E-01	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	9.30E-02
Phthalates														
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	Rat	3.50E-01	9.40E+02	mg/m3/6H/4W-I	3.91E+02	9.40E+02	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	9.40E+01
Butylbenzyl phthalate	85-68-7	Rat	3.50E-01	2.10E+03	mg/m3/6H/4W-I	3.12E+02	2.10E+03	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	2.10E+02
Dibutyl phthalate	84-74-2	Rat	3.50E-01	9.00E+02	mg/m3/6H/35D-I	2.78E+02	9.00E+02	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	9.00E+01
Diethyl phthalate	84-66-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dimethylphthalate	131-11-3	Cat	4.50E+00	9.30E+03	mg/m3/6.5H	1.94E+02	9.30E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	9.30E+01
n-Dioctyl phthalate	117-84-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)														
2-Chloronapthalene	91-58-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Methyl naphthalene	91-57-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
5-Nitroacenaphthene	602-87-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Acenaphthene	83-32-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Acenaphthylene	208-96-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Anthracene	120-12-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Fluorene	86-73-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Indene	95-13-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Naphthalene	91-20-3	Mouse	3.00E-02	3.00E+01	ppm/6H/2Y-I	1.28E+02	1.57E+02	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	1.57E+01
Phenanthrene	85-01-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Pyrene	129-00-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)														
3-Methylcholanthrene	56-49-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
5-Methylchrysene	3697-24-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo(a)anthracene	56-55-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo(a)pyrene	50-32-8	Mouse	3.00E-02	2.00E+02	ng/m3/6H/13W-I	2.52E+02	2.00E-04	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	2.00E-05
Benzo(b)fluoranthene	205-99-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo(e)pyrene	192-97-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo(g,h,i)perylene	191-24-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo(j)fluoranthene	205-82-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo(k)fluoranthene	207-08-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Benzo[a,i]pyrene	191-30-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Chrysene	218-01-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenz(a,h)anthracene	53-70-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenz[a,h]acridine	226-36-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenz[a,j]acridine	224-42-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenzo(a,e)fluoranthene	5385-75-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenzo(a,h)fluoranthene	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenzo[a,e]pyrene	192-65-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenzo[a,h]pyrene	189-64-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibenzo[a,i]pyrene	189-55-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Fluoranthene	206-44-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Hexachloronaphthalene	1335-87-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Indeno(1,2,3-cd)pyrene	193-39-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Octachloronaphthalene	2234-13-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Pentachloronaphthalene	1321-64-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Tetrachloronaphthalene	1335-88-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Trichloronaphthalene	1321-65-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m³)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m³) = Benchmark x DCF x ECF
Light Substituted Benzene Compounds (MW <200 g/mole)														
1,2,3-Trichlorobenzene	87-61-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,4-Trichlorobenzene	120-82-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2,4-Trimethyl benzene	95-63-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,2-Dichlorobenzene	95-50-1	Rat	3.50E-01	2.00E+02	ppm/6H/6-15 D	1.47E+02	1.20E+03	Subchronic	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.20E+01
1,3,5-Trimethyl benzene	108-67-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,3-Dichlorobenzene	541-73-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,3-Dinitrobenzene	99-65-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,4-Dichlorobenzene	106-46-7	Rabbit	3.80E+00	8.00E+02	ppm/6H/6-18D	1.47E+02	4.81E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	4.81E+01
1,4-Dinitrobenzene	100-25-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,4,5-Trichlorophenol	95-95-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,4,6-Trichlorophenol	88-06-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,4-Dichlorophenol	120-83-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,4-Dimethylphenol	105-67-9	Rat	3.50E-01	3.00E+01	mg/m3	1.22E+02	3.00E+01	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	3.00E-01
2,4-Dinitrophenol	51-28-5	Dog	1.27E+01	3.00E+02	mg/m3/30M	1.84E+02	3.00E+02	Chronic	LCLo	Mortality	RTECS	1.00E+00	1.00E-01	3.00E+01
2,4-Dinitrotoluene	121-14-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,6-Dinitrotoluene	606-20-2	Rat	3.50E-01	2.40E+02	mg/m3/6H	1.82E+02	2.40E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	2.40E-01
2-Chlorophenol	95-57-8	Rat	3.50E-01	3.10E+03	mg/m3/6H	1.29E+02	3.10E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	3.10E+01
2-Chlorotoluene	95-49-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Nitrophenol	88-75-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
4,6-Dinitro-o-cresol	534-52-1	Cat	4.50E+00	2.00E+00	mg/m3/4H/4W	1.98E+02	2.00E+00	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.00E-01
4-Chlorotoluene	106-43-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
4-Nitrophenol	100-02-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
alpha-Methylstyrene	98-83-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Aniline	62-53-3	Rat	3.50E-01	5.00E+00	ppm	9.31E+01	1.90E+01	Chronic	--	Organ dysfunction	IRIS	1.00E+00	1.00E-01	1.90E+00
Benzotrichloride	98-07-7	Mouse	3.00E-02	1.62E+00	ppm/20M/2 2W	1.95E+02	1.30E+01	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	1.30E+00
Benzyl chloride	100-44-7	Mouse	3.00E-02	4.60E+01	ppm/6H/14D	1.27E+02	2.38E+02	Subchronic	TCLo	Sense organs	RTECS	1.00E-01	1.00E-01	2.38E+00
Bromobenzene	108-86-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Chlorobenzene	108-90-7	Rabbit	3.80E+00	1.00E+01	ppm/6H/6-18D	1.13E+02	4.60E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	4.60E-01
Cumene	98-82-8	Mouse	3.00E-02	1.00E+01	gm/m3/7H	1.20E+02	1.00E-02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.00E-05
m-Cresol	108-39-4	Rabbit	3.80E+00	2.00E+00	mg/m3/24H/6W	1.08E+02	2.00E+00	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.00E-01
n-Butyl benzene	104-51-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Nitrobenzene	98-95-3	Rat	3.50E-01	1.26E+03	ug/m3/4H/1-21D	1.23E+02	1.26E+00	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	1.26E-01
n-Propyl benzene	103-65-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
o-Cresol	95-48-7	Mouse	3.00E-02	1.79E+02	mg/m3/2H	1.08E+02	1.79E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.79E-01
o-Dinitrobenzene	528-29-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
o-Nitroaniline	88-74-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
o-Toluidine	95-53-4	Rat	3.50E-01	8.62E+02	ppm/4H	1.07E+02	3.77E+03	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	3.77E+00
p-Chloroaniline	106-47-8	Rat	3.50E-01	2.34E+03	mg/m3/4H	1.28E+02	2.34E+03	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	2.34E+00
p-Cresol	106-44-5	Rat	3.50E-01	7.10E+02	mg/m3/1H	1.08E+02	7.10E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	7.10E-01
Phenol	108-95-2	Rat	3.50E-01	5.00E+00	mg/m3/4H/17W-I	9.41E+01	5.00E+00	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	5.00E-01
p-Nitrochlorobenzene	100-00-5	Rat	3.50E-01	2.40E+01	ppm/6H/13W	1.58E+02	1.55E+02	Chronic	TCLo	Reproduction	RTECS	1.00E+00	1.00E-01	1.55E+01
p-Toluidine	106-49-0	Rat	3.50E-01	6.40E+02	mg/m3/1H	1.07E+02	6.40E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	6.40E-01
sec-Butyl benzene	135-98-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
tert-Butyl benzene	98-06-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Toluene-2,6-diamine	823-40-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Trimethyl benzene	25551-13-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Other Light Semivolatile Compounds (MW+A275 <200 g/mole)														
1,1'-Biphenyl	92-52-4	Rat	3.50E-01	2.00E+02	mg/m3	1.54E+02	2.00E+02	Chronic	LC	Mortality	RTECS	1.00E+00	1.00E-01	2.00E+01
1,1-Dimethylhydrazine	57-14-7	Rat	3.50E-01	3.40E+01	gm/m3/13M/40D	6.01E+01	3.40E+04	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	3.40E+03
1,2-Dimethylhydrazine	540-73-8	Rat	3.50E-01	2.80E+02	ppm/4H	6.01E+01	6.88E+02	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	6.88E+00
1,2-Diphenylhydrazine	122-66-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,3-Propane sultone	1120-71-4	Rat	3.50E-01	2.14E+03	mg/m3/6H	1.22E+02	2.14E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.14E+01

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
2,4-Toluene diisocyante	584-84-9	Rat	3.50E-01	2.04E+02	ug/m3/24H/84D	1.74E+02	2.04E-01	Chronic	TCLo	Muscle tissue	RTECS	1.00E+00	1.00E-01	2.04E-02
2-Chloroacetophenone	532-27-4	Rat	3.50E-01	1.00E+00	mg/m3	1.55E+02	1.00E+00	Chronic	--	Nasal tissue	IRIS	1.00E+00	1.00E-01	1.00E-01
2-Propenoic acid	79-10-7	Monkey	5.00E+00	7.50E+01	ppm/6H	7.21E+01	2.21E+02	Acute	LC	Sense organs	RTECS	1.00E-01	1.00E-01	2.21E+00
4,4-Methylenedianiline	101-77-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Acetophenone	98-86-2	Rat	3.50E-01	2.10E+02	ppm/8H	1.21E+02	1.03E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.03E+01
Benzoic acid	65-85-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
bis(2-Chloroethoxy)methane	111-91-1	Rat	3.50E-01	6.20E+01	ppm/4H	1.73E+02	4.39E+02	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	4.39E+00
bis(2-Chloroethyl) ether	111-44-4	Rat	3.50E-01	3.30E+02	mg/m3/4H	1.43E+02	3.30E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	3.30E-01
Chlorocyclopentadiene	41851-50-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Cyclohexanol	108-93-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dichloroisopropyl ether	108-60-1	Rat	3.50E-01	7.00E+02	ppm/5H	1.71E+02	4.90E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	4.90E+01
Dichloromethyl ether	542-88-1	Rat	3.50E-01	1.00E+02	ppb/6H/4WI	1.15E+02	4.70E-01	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	4.70E-02
Dichloropentadiene	no cas #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dimethyl sulfate	77-78-1	Rat	3.50E-01	1.70E+01	mg/m3/19W	1.26E+02	1.70E+01	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	1.70E+00
Dimethylaniline	121-69-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Di-n-propylnitrosamine	621-64-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Diphenyl ether	101-84-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Epichlorohydrin	106-89-8	Rat/Mouse	3.00E-02	5.00E+00	ppm	9.25E+01	1.89E+01	Chronic	--	Nasal tissue	IRIS	1.00E+00	1.00E-01	1.89E+00
Ethyl carbamate (urethane)	51-79-6	Mouse	3.00E-02	1.38E+02	ppm/130d-I	8.91E+01	5.03E+02	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	5.03E+01
Ethyl methanesulfonate	62-50-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ethylene dibromide	106-93-4	Mouse	3.00E-02	3.00E+00	ppm/6H/13W-I	1.88E+02	2.31E+01	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	2.31E+00
Ethylene glycol	107-21-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ethylene glycol monobutyl ether	111-76-2	Rat	3.50E-01	3.80E+02	mg/m3	1.18E+02	3.80E+02	Chronic	--	Blood effects	IRIS	1.00E+00	1.00E-01	3.80E+01
Ethylene glycol monoethyl ether acetate	111-15-9	Rat	3.50E-01	1.21E+04	mg/m3/8H	1.32E+02	1.21E+04	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.21E+01
Ethylene thiourea	96-45-7	Rat	3.50E-01	2.72E+04	ug/m3/3H	1.02E+02	2.72E+01	Acute	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.72E-01
Furfural	98-01-1	Rat	3.50E-01	1.75E+02	ppm/6H	9.61E+01	6.88E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	6.88E-01
Maleic hydrazide	123-33-1	Rat	3.50E-01	2.00E+01	gm/m3	1.12E+02	2.00E-02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	2.00E-05
Malononitrile	109-77-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Methyl styrene (mixed isomers)	25013-15-4	Mouse	3.00E-02	2.00E+02	ppm/6H/15D-I	1.18E+02	9.67E+02	Subchronic	TCLo	Organ dysfunction	RTECS	1.00E-01	1.00E-01	9.67E+00
Methylhydrazine	60-34-4	Dog	1.27E+01	2.00E-01	ppm/24H/30W-C	4.61E+01	3.77E-01	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	3.77E-02
N,N-Diphenylamine	122-39-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Nitric acid, propyl ester	627-13-4	Rat	3.50E-01	5.82E+03	ppm/4H	1.05E+02	2.50E+04	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.50E+02
N-Nitrosodi-n-butylamine	924-16-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
N-Nitrosomorpholine	59-89-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
N-Nitroso-N,N-dimethylamine	62-75-9	Mouse	3.00E-02	2.00E+02	ug/m3/45W-C	7.41E+01	2.00E-01	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	2.00E-02
o-Anisidine	90-04-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Oxalic acid	144-62-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Phthalic anhydride	85-44-9	Rat	3.50E-01	1.00E+00	mg/m3	1.48E+02	1.00E+00	Acute	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.00E-02
p-Phthalic acid	100-21-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Pyridine	110-86-1	Rat	3.50E-01	1.00E+00	mg/m3/24H/60D-C	7.91E+01	1.00E+00	Chronic	TCLo	Blood effects	RTECS	1.00E+00	1.00E-01	1.00E-01
Quinoline	91-22-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Quinone	106-51-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Safrole	94-59-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Tetrahydrofuran	109-99-9	Mouse	3.00E-02	1.80E+03	ppm/6H/6-17D	7.21E+01	5.31E+03	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	5.31E+01
Other Heavy Semivolatile Compounds (MW >200 g/mole)														
1,2,4,5-Tetrachlorobenzene	95-94-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
1,3,5-Trinitrobenzene	99-35-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2-sec-Butyl-4,6-dinitrophenol	88-85-7	Cat	4.50E+00	4.50E+01	mg/m3/3H	2.40E+02	4.50E+01	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	4.50E-01
3,3-Dichlorobenzidine	91-94-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
3,3'-Dimethoxybenzidine	119-90-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
4-Bromophenylphenyl ether	101-55-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ammonium perfluorooctanoate	3825-26-1	Rat	3.50E-01	2.50E+01	mg/m3/6H/6-15D	4.31E+02	2.50E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	2.50E-01

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Azobenzene	103-33-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Captan	133-06-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Chlorobenzilate	510-15-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dibutylphosphate	107-66-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dimethyl aminoazobenzene	60-11-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Hexachlorobenzene	118-74-1	Rabbit	3.80E+00	1.80E+03	mg/m3	2.85E+02	1.80E+03	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.80E+00
Hexachlorobutadiene	87-68-3	Rat	3.50E-01	1.50E+01	ppm/6H/6-20D	2.61E+02	1.60E+02	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	1.60E+00
Hexachlorocyclopentadiene	77-47-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Hexachloroethane	67-72-1	Guinea pig	3.50E-01	2.60E+02	ppm/6H/6 W-I	2.37E+02	2.52E+03	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.52E+02
Hexachlorophene	70-30-4	Rat	3.50E-01	3.35E+04	ug/m3/24H	4.07E+02	3.35E+01	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	3.35E-01
Hexamethylene-1,5-diisocyanate	822-06-0	Rat	3.50E-01	5.00E-03	ppm	1.68E+02	3.40E-02	Chronic	–	Nasal tissue	IRIS	1.00E+00	1.00E-01	3.40E-03
Mirex	2385-85-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Nitrofen	1836-75-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Pentachlorobenzene	608-93-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Pentachloronitrobenzene	82-68-8	Rat	3.50E-01	1.40E+03	mg/m3	2.95E+02	1.40E+03	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.40E+00
Pentachlorophenol	87-86-5	Mouse	3.00E-02	2.25E+02	mg/m3	2.66E+02	2.25E+02	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	2.25E-01
Picric acid	88-89-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Pronamide	23950-58-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Strychnine	57-24-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Terphenyls	26140-60-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Tributyl phosphate	126-73-8	Rat	3.50E-01	5.00E+02	mg/m3/6H/30D-I	2.66E+02	5.00E+02	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	5.00E+01
Trifluralin	1582-09-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Triphenylamine	603-34-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Herbicides and Organochlorinated Pesticides														
2,4,5-T	93-76-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
2,4-D and esters	94-75-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
4,4-DDD	72-54-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
4,4-DDE	72-55-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
4,4-DDT	50-29-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Aldrin	309-00-2	Rat	3.50E-01	5.80E+03	ug/m3/4H	3.65+02	5.80E+00	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	5.80E-02
alpha-BHC	319-84-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
beta-BHC	319-85-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Chlordane	57-74-9	Rat	3.50E-01	2.82E+04	ug/m3/8H/28D-I	4.10E+02	2.82E+01	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.82E+00
Delta-BHC	319-86-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Dieldrin	60-57-1	Rat	3.50E-01	1.30E+01	mg/m3/4H	3.81E+02	1.30E+01	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.30E-02
Endothall	145-73-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Endrin	72-20-8	Mouse	3.00E-02	3.60E-01	ppm/7H/22W-I	3.81E+02	5.61E+00	Chronic	TCLo	Mortality	RTECS	1.00E+00	1.00E-01	5.61E-01
gamma-BHC (Lindane)	58-89-9	Cat	4.50E+00	2.00E+00	mg/m3/4H/9W-I	2.91E+02	2.00E+00	Chronic	TCLo	Immune system	RTECS	1.00E+00	1.00E-01	2.00E-01
Heptachlor	76-44-8	Cat	4.50E+00	1.50E+02	mg/m3/4H	3.73E+02	1.50E+02	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.50E+00
Isodrin	465-73-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Methoxychlor	72-43-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Silvex (2,4,5-TP)	93-72-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Toxaphene	8001-35-2	Mouse	3.00E-02	2.00E+03	mg/m3/2H	4.14E+02	2.00E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	2.00E+01
Inorganic Chemicals and Compounds														
Metals														
Aluminum	7429-90-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Antimony	7440-36-0	Rat	3.50E-01	5.00E+01	mg/m3/7H/52W-I	1.22E+02	5.00E+01	Chronic	TCLo	Tumorigenic	RTECS	1.00E+00	1.00E-01	5.00E+00
Arsenic	7440-38-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Barium	7440-39-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Beryllium	7440-41-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Bismuth	7440-69-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Boron	7440-42-8	Rat	3.50E-01	1.06E+04	ug/m3/4H/17W-I	1.08E+01	1.06E+01	Chronic	TCLo	Metabolism	RTECS	1.00E+00	1.00E-01	1.06E+00
Cadmium	7440-43-9	Rat	3.50E-01	2.50E+01	mg/m3/30M/60D-I	1.12E+02	2.50E+01	Chronic	LC50	Mortality	RTECS	1.00E+00	1.00E-02	2.50E-01

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Calcium	7440-70-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Chromium (and VI)	18540-29-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Cobalt	7440-48-4	Rat	3.50E-01	2.00E+02	mg/m3/17W-I	5.89E+01	2.00E+02	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.00E+01
Copper	7440-50-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Iron	7439-89-6	Rat	3.50E-01	2.50E+02	mg/m3/6H/4W-I	5.59E+01	2.50E+02	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	2.50E+01
Lead	7439-92-1	Rat	3.50E-01	3.00E+00	mg/m3/24H	2.07E+02	3.00E+00	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	3.00E-02
Lithium	7439-93-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Magnesium	7439-95-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Manganese	7439-96-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Mercury	7439-97-6	Rat	3.50E-01	8.90E+02	ng/m3/24H	2.01E+02	8.90E-04	Subchronic	TCLo	Reproduction	RTECS	1.00E-01	1.00E-01	8.90E-06
Molybdenum	7439-98-7	Rat	3.50E-01	1.95E+04	ug/m3	9.59E+01	1.95E+01	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.95E-01
Nickel	7440-02-0	Rat	3.50E-01	1.00E+02	ug/m3/24H/17W-C	5.87E+01	1.00E-01	Chronic	TCLo	Organ dysfunction	RTECS	1.00E+00	1.00E-01	1.00E-02
Potassium	7440-09-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Rhodium	7440-16-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Selenium	7782-49-2	Rat	3.50E-01	1.47E+02	mg/m3	7.90E+01	1.47E+02	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.47E+00
Silicon	7440-21-3	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Silver	7440-22-4	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Sodium	7440-23-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Strontium	7440-24-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Tantalum	7440-25-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Thallium	7440-28-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Tin	7440-31-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Tungsten	7440-33-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Uranium	7440-61-1	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Vanadium	7440-62-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Yttrium	7440-65-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Zinc	7440-66-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Zirconium	7440-67-7	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Non-metals and Anions														

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Ammonia/Ammonium	7664-41-7	Rat	3.50E-01	3.00E+02	ppm/6H/5 D-I	1.70E+01	2.09E+02	Subchronic	TCLo	Organ dysfunction	RTECS	1.00E-01	1.00E-01	2.09E+00
Bromide	24959-67-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Chloride	16887-00-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Cyanide	57-12-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Fluoride	16984-48-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Hydroxide	14280-30-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Iodine	7553-56-2	Rat	3.50E-01	1.37E+02	ppm/1H	2.54E+02	1.42E+03	Acute	LCLo	Mortality	RTECS	1.00E-01	1.00E-01	1.42E+01
Nitrate	14797-55-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Nitrite	14797-65-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Phosphate	14265-44-2	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Phosphorus	7723-14-0	Rabbit	3.80E+00	1.60E+02	mg/m3/30 M/60D-I	1.24E+02	1.60E+02	Chronic	TCLo	Blood	RTECS	1.00E+00	1.00E-01	1.60E+01
Sulfate	14808-79-8	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Total Sulfur	63705-05-5	Mammal	unspecified	1.66E+03	mg/m3	3.21E+01	1.66E+03	Acute	LC50	Mortality	RTECS	1.00E-01	1.00E-02	1.66E+00
Priority Pollutants														
Carbon Dioxide	124-38-9	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Nitrogen Dioxide	10102-44-0	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Ozone	10028-15-6	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Particulate Matter	No CAS #	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Sulfur Dioxode	7446-09-5	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Radionuclides														
Actinium-227	14952-40-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Americium-241	1596-10-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Americium-243	14993-75-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony-125	14234-35-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium-137	13981-97-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium-113	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon-14	14762-75-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cesium-134	13967-70-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cesium-137	10045-97-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt-60	10198-40-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Curium-242	15510-73-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Curium-243	15757-87-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Curium-244	13981-15-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Europium-152	14683-23-9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Europium-154	15585-10-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Europium-155	14391-16-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodine-129	15046-84-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Neptunium-237	13994-20-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel-59	14336-70-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel-63	13981-37-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Niobium-93	7440-03-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-238	13981-16-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-239	15117-48-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-240	14119-33-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-241	14119-32-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-242	13982-10-0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Protactinium-231	14331-85-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Radium-226	13982-63-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Radium-228	15262-20-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ruthenium-106	13967-48-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Samarium-151	15715-94-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium-79	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strontium-90	10098-97-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technetium-99	14133-79-7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thorium-229	15594-54-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thorium-232	7440-29-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin-126	15832-50-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tritium	10028-17-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium-232	14158-29-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium-233	13968-55-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium-234	13966-29-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C3-7. Derivation of Inhalation TRVs for Mammal Test Species

Constituent of Potential Concern	CAS Registry Number	Test Species	Assumed Test Species Body Weight (kg)[a]	Published Test Benchmark/Unit/Duration		Molecular Weight	Converted Test Benchmark (mg/m^3)[b]	Test Duration[c]	Test Endpoint	Effect	Source	Proposed Duration Conversion Factor DCF[d]	Proposed Endpoint Conversion Factor ECF[e]	TRV (mg/m^3) = Benchmark x DCF x ECF
Uranium-235	15117-96-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium-236	13982-70-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uranium-238	7440-61-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Yttrium-90	10098-91-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zirconium-93	15751-77-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[a] Body weights not reported; mouse, rat, rabbit and dog assumed to be EPA standard reference body weights as reported in Table 1 in Sample et al. (1996); other assumptions include guinea pig = rat; cat = red fox (Storm et al. 1976); monkey = rhesus monkey (Barsotti et al. 1976). Body weights and inhalation rates will be used to calculate TRV doses (mg/kg/d).

[b] mg/m^3 = ppm x (molecular weight/24450) x 1000 L/m^3 (Clayton and Clayton 1981); mg/m^3 = (ug/m^3)/1000 (ug/mg)

[c] if Published Test Duration < 24 hours = acute; if < 20 days = subchronic; if > 20 days = chronic; assumed to be chronic if no duration information except when Test Endpoint is LC50 assumed to be acute.

[d] DCF = 1 if chronic, 0.1 if subchronic or acute

[e] ECF = 1 if NOAEL, 0.1 if TCLo or LCLo, 0.01 if LC_{50}

TCLo = Toxic concentration, low

LC50 = Lethal concentration, 50 percent kill

LCLo = Lethal concentration, low

-- = no data; for test endpoint assumed to be TCLo

RTECS = Registry of Toxic Effects of Chemical Substances (NIOSH), downloaded in January 1999

IRIS = USEPA Integrated Risk Information System, downloaded in January 2000

No data = No inhalation data available from the available Iris or Rtecs source

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Organic Compounds (All units are in ug/kg)						
Aromatic Halogenated Hydrocarbons						
4-Chloro-3-methylphenol	59-50-7	No data		No data	No data	
2,3,4,6-Tetrachlorophenol	58-90-2	No data		No data	No data	
Aromatic Nonhalogenated Hydrocarbons						
2-Nitrotoluene	88-72-2	No data		No data	No data	
4-Nitrobiphenyl	92-93-3	No data		No data	No data	
Benzaldehyde	100-52-7	No data		No data	No data	
Benzene	71-43-2	No data		No data	No data	
Benzyl alcohol	100-51-6	No data		No data	No data	
Ethyl benzene	100-41-4	No data		No data	No data	
m-Xylene	108-38-3	No data		No data	No data	
o-Xylene	95-47-6	No data		No data	No data	
p-Xylene	106-42-3	No data		No data	No data	
Styrene	100-42-5	No data		No data	No data	
Toluene	108-88-3	No data		No data	No data	
Non-aromatic Nonhalogenated Hydrocarbons						
1,2-Epoxybutane	106-88-7	No data		No data	No data	
1,3-Butadiene	106-99-0	No data		No data	No data	
1,4-Dioxane	123-91-1	2.17E+03[d]		No data	No data	2.17E+03
1-Methylpropyl alcohol	78-92-2	No data		No data	No data	
1-Nitropropane	108-03-2	No data		No data	No data	
2,2,4-Trimethylpentane	540-84-1	No data		No data	No data	
2-Butanone	78-93-3	No data		No data	No data	
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data	No data	
2-Ethoxyethanol	110-80-5	No data		No data	No data	
2-Heptanone	110-43-0	No data		No data	No data	
2-Hexanone	591-78-6	No data		No data	No data	
2-Methoxyethanol	109-86-4	No data		No data	No data	
2-Methyl-2-propanol	75-65-0	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
2-Methyl-2-propenenitrile	126-98-7	No data		No data	No data	
2-Methylaziridine	75-55-8	No data		No data	No data	
2-Methylpropyl alcohol	78-83-1	No data		No data	No data	
2-Pentanone	107-87-9	No data		No data	No data	
2-Propanone (Acetone)	67-64-1	5.71E+01[d]		No data	No data	5.71E+01
2-Propene-1-ol	107-18-6	No data		No data	No data	
2-Propyl alcohol	67-63-0	No data		No data	No data	
3-Heptanone	106-35-4	No data		No data	No data	
3-Methyl-1-butanol	123-51-3	No data		No data	No data	
3-Methyl-2-butanone	563-80-4	No data		No data	No data	
3-Pentanone	96-22-0	No data		No data	No data	
4-Heptanone	123-19-3	No data		No data	No data	
4-Methyl-2-pentanone	108-10-1	No data		No data	No data	
4-Methyl-3-penten-2-one	141-79-7	No data		No data	No data	
5-Methyl-2-hexanone	110-12-3	No data		No data	No data	
Acetaldehyde	75-07-0	No data		No data	No data	
Acetamide	60-35-5	No data		No data	No data	
Acetic acid	64-19-7	No data		No data	No data	
Acetic acid ethyl ester	141-78-6	No data		No data	No data	
Acetic acid n-butyl ester	123-86-4	No data		No data	No data	
Acetonitrile	75-05-8	No data		No data	No data	
Acrolein	107-02-8	No data		No data	No data	
Acrylonitrile	107-13-1	2.31E+01[d]		No data	No data	2.31E+01
Bis(isopropyl)ether	108-20-3	No data		No data	No data	
Butane	106-97-8	No data		No data	No data	
Carbon disulfide	75-15-0	No data		No data	No data	
Cyanogen	460-19-5	No data		No data	No data	
Cyclohexane	110-82-7	No data		No data	No data	
Cyclohexanone	108-94-1	No data		No data	No data	
Cyclohexene	110-83-8	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Cyclopentane	287-92-3	No data		No data	No data	
Ethyl alcohol	64-17-5	No data		No data	No data	
Ethyl ether	60-29-7	No data		No data	No data	
Ethyl methacrylate	97-63-2	No data		No data	No data	
Formaldehyde	50-00-0	5.20E+00[d]		No data	No data	5.20E+00
Formamide	75-12-7	No data		No data	No data	
Formic acid	64-18-6	No data		No data	No data	
Formic acid, methyl ester	107-31-3	No data		No data	No data	
Glycidylaldehyde	765-34-4	No data		No data	No data	
Methyl acetate	79-20-9	No data		No data	No data	
Methyl alcohol	67-56-1	No data		No data	No data	
Methyl isocyanate	624-83-9	No data		No data	No data	
Methyl methacrylate	80-62-6	No data		No data	No data	
Methyl tert-butyl ether	1634-04-4	No data		No data	No data	
Methylacetylene	74-99-7	No data		No data	No data	
Methylcyclohexane	108-87-2	No data		No data	No data	
N,N-Dimethylacetamide	127-19-5	No data		No data	No data	
n-Butyl alcohol	71-36-3	No data		No data	No data	
n-Heptane	142-82-5	No data		No data	No data	
n-Hexane	110-54-3	No data		No data	No data	
Nitromethane	75-52-5	No data		No data	No data	
n-Nonane	111-84-2	No data		No data	No data	
n-Octane	111-65-9	No data		No data	No data	
n-Pentane	109-66-0	No data		No data	No data	
n-Propionaldehyde	123-38-6	No data		No data	No data	
n-Propyl alcohol	71-23-8	No data		No data	No data	
n-Valeraldehyde	110-62-3	No data		No data	No data	
Oxirane	75-21-8	No data		No data	No data	
p-Cymene	99-87-6	No data		No data	No data	
Phosgene	75-44-5	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Propargyl alcohol	107-19-7	No data		No data	No data	
Propionic acid	79-09-4	No data		No data	No data	
Propionitrile	107-12-0	No data		No data	No data	
Propylene gylcol monomethyl ether	107-98-2	No data		No data	No data	
p-tert-Butyltoluene	98-51-1	No data		No data	No data	
Triethylamine	121-44-8	No data		No data	No data	
Trimethylamine	75-50-3	No data		No data	No data	
Vinyl acetate	108-05-4	No data		No data	No data	
Non-aromatic Halogenated Hydrocarbons						
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data	No data	
1,1,1,2-Tetrachloroethane	630-20-6	No data		No data	No data	
1,1,1-Trichloroethane	71-55-6	No data		No data	No data	
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No data		No data	No data	
1,1,2,2-Tetrachloroethane	79-34-5	No data		No data	No data	
1,1,2,2-Tetrachloroethene	127-18-4	No data		No data	No data	
1,1,2-Trichloroethane	79-00-5	No data		No data	No data	
1,1,2-Trichloroethylene	79-01-6	No data		No data	No data	
1,1-Dichloroethane	75-34-3	No data		No data	No data	
1,1-Dichloroethene	75-35-4	No data		No data	No data	
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No data		No data	No data	
1,2,3-Trichloropropane	96-18-4	No data		No data	No data	
1,2-Dibromo-3-chloropropane	96-12-8	No data		No data	No data	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No data		No data	No data	
1,2-Dichloroethane	107-06-2	No data		No data	No data	
1,2-Dichloroethylene	540-59-0	No data		No data	No data	
1,2-Dichloropropane	78-87-5	No data		No data	No data	
1,3-Dichloropropene	542-75-6	No data		No data	No data	
1,4-Dichloro-2-butene	764-41-0	No data		No data	No data	
1-Chloroethene	75-01-4	No data		No data	No data	
2,2-Dichloropropionic acid	75-99-0	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
2-Chloropropane	75-29-6	No data		No data	No data	
3-Chloropropene (allyl chloride)	107-05-1	No data		No data	No data	
Bromochloromethane	74-97-5	No data		No data	No data	
Bromodichloromethane	75-27-4	No data		No data	No data	
Bromoethene	593-60-2	No data		No data	No data	
Bromoform	75-25-2	No data		No data	No data	
Bromomethane	74-83-9	No data		No data	No data	
Carbon tetrachloride	56-23-5	No data		No data	No data	
Chlorodibromomethane	124-48-1	No data		No data	No data	
Chlorodifluoromethane	75-45-6	No data		No data	No data	
Chloroethane	75-00-3	No data		No data	No data	
Chloroform	67-66-3	5.94E+01[d]		No data	No data	5.94E+01
Chloromethane	74-87-3	No data		No data	No data	
Chloropentafluoroethane	76-15-3	No data		No data	No data	
cis-1,2-Dichloroethene	156-59-2	No data		No data	No data	
cis-1,3-Dichloropropene	10061-01-5	No data		No data	No data	
Cyanogen bromide	506-68-3	No data		No data	No data	
Cyanogen chloride	506-77-4	No data		No data	No data	
Dichlorodifluoromethane	75-71-8	No data		No data	No data	
Dichlorofluoromethane	75-43-4	No data		No data	No data	
Dichloromethane	75-09-2	No data		No data	No data	
Difluorodibromomethane	75-61-6	No data		No data	No data	
Hexafluoroacetone	684-16-2	No data		No data	No data	
Iodomethane	74-88-4	No data		No data	No data	
Methylene bromide	74-95-3	No data		No data	No data	
Pentachloroethane	76-01-7	No data		No data	No data	
trans-1,2-Dichloroethene	156-60-5	No data		No data	No data	
trans-1,3-Dichloropropene	10061-02-6	No data		No data	No data	
Trichloroacetic acid	76-03-9	No data		No data	No data	
Trichlorofluoroethane	27154-33-2	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Trichlorofluoromethane	75-69-4	No data		No data	No data	
Trifluorobromomethane	75-63-8	No data		No data	No data	
Dioxin and Furan Compounds						
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	No data		No data	No data	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No data		No data	No data	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No data		No data	No data	
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	No data		No data	No data	
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No data		No data	No data	
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	No data		No data	No data	
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No data		No data	No data	
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	No data		No data	No data	
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No data		No data	No data	
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	No data		No data	No data	
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No data		No data	No data	
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No data		No data	No data	
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No data		No data	No data	
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	4.10E-01[d]		No data	No data	4.10E-01
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No data		No data	No data	
Dibenzofuran	132-64-9	No data		No data	No data	
Octachlorodibenzo(p)dioxin	3268-87-9	No data		No data	No data	
Octachlorodibenzofuran	39001-02-0	No data		No data	No data	
PCBs						
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No data		No data	No data	
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No data		No data	No data	
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data	No data	
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data	No data	
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data	No data	
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data	No data	
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data	No data	
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No data		No data	No data	
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data	No data	
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data	No data	
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No data		No data	No data	
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data	No data	
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data	No data	
Polychlorinated biphenyls (PCBs)[k]	1336-36-3	No data		7.00E+01[e]	No data	7.00E+01
Phthalates						
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	1.33E+04[d]		No data	No data	1.33E+04
Butylbenzyl phthalate	85-68-7	No data		No data	No data	
Dibutyl phthalate	84-74-2	No data		No data	No data	
Diethyl phthalate	84-66-2	No data		No data	No data	
Dimethylphthalate	131-11-3	No data		No data	No data	
n-Dioctyl phthalate	117-84-0	1.16E+10[d]		No data	No data	1.16E+10
Light Polycyclic Aromatic Hydrocarbons (molecular weight <200 g/mole)						
2-Chloronapthalene	91-58-7	No data		No data	No data	
2-Methyl naphthalene	91-57-6	No data		No data	7.00E+01	7.00E+01
5-Nitroacenaphthene	602-87-9	No data		No data	No data	
Acenaphthene	83-32-9	No data		No data	4.60E+01	4.60E+01
Acenaphthylene	208-96-8	No data		No data	4.40E+01	4.40E+01
Anthracene	120-12-7	No data		2.20E+02	8.53E+01	2.20E+02
Fluorene	86-73-7	No data		1.90E+02	1.90E+01	1.90E+02
Indene	95-13-6	No data		No data	No data	
Naphthalene	91-20-3	No data		No data	1.60E+02	1.60E+02
Phenanthrene	85-01-8	No data		5.60E+02	2.40E+02	5.60E+02
Pyrene	129-00-0	No data		4.90E+02	6.65E+02	4.90E+02
Heavy Polycyclic Aromatic Hydrocarbons (molecular weight >200 g/mole)						
3-Methylcholanthrene	56-49-5	No data		No data	No data	
5-Methylchrysene	3697-24-3	No data		No data	No data	
Benzo(a)anthracene	56-55-3	1.90E+01		3.20E+02	2.61E+02	1.90E+01

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Benzo(a)pyrene	50-32-8	8.40E+01		3.70E+02	4.30E+02	8.40E+01
Benzo(b)fluoranthene	205-99-2	3.70E+01		No data	No data	3.70E+01
Benzo(e)pyrene	192-97-2	No data		No data	No data	
Benzo(g,h,i)perylene	191-24-2	No data		1.70E+02	No data	1.70E+02
Benzo(j)fluoranthene	205-82-3	No data		No data	No data	
Benzo(k)fluoranthene	207-08-9	3.70E+01		2.40E+02	No data	3.70E+01
Benzo[a,i]pyrene	191-30-0	No data		No data	No data	
Chrysene	218-01-9	3.00E+01		3.40E+02	3.84E+02	3.00E+01
Dibenz(a,h)anthracene	53-70-3	1.00E+01		6.00E+01	6.34E+01	1.00E+01
Dibenz[a,h]acridine	226-36-8	No data		No data	No data	
Dibenz[a,j]acridine	224-42-0	No data		No data	No data	
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data	No data	
Dibenzo(a,h)fluoranthene	no cas #	No data		No data	No data	
Dibenzo[a,e]pyrene	192-65-4	No data		No data	No data	
Dibenzo[a,h]pyrene	189-64-0	No data		No data	No data	
Dibenzo[a,i]pyrene	189-55-9	No data		No data	No data	
Fluoranthene	206-44-0	No data		7.50E+02	6.00E+02	7.50E+02
Hexachloronaphthalene	1335-87-1	No data		No data	No data	
Indeno(1,2,3-cd)pyrene	193-39-5	3.00E+01		2.00E+02	No data	3.00E+01
Octachloronaphthalene	2234-13-1	No data		No data	No data	
Pentachloronaphthalene	1321-64-8	No data		No data	No data	
Tetrachloronaphthalene	1335-88-2	No data		No data	No data	
Trichloronaphthalene	1321-65-9	No data		No data	No data	
Light Substituted Benzene Compounds (MW <200 g/mole)						
1,2,3-Trichlorobenzene	87-61-6	No data		No data	No data	
1,2,4-Trichlorobenzene	120-82-1	No data		No data	No data	
1,2,4-Trimethyl benzene	95-63-6	No data		No data	No data	
1,2-Dichlorobenzene	95-50-1	No data		No data	No data	
1,3,5-Trimethyl benzene	108-67-8	No data		No data	No data	
1,3-Dichlorobenzene	541-73-1	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
1,3-Dinitrobenzene	99-65-0	2.14E+01[d]		No data	No data	2.14E+01
1,4-Dichlorobenzene	106-46-7	No data		No data	No data	
1,4-Dinitrobenzene	100-25-4	No data		No data	No data	
2,4,5-Trichlorophenol	95-95-4	No data		No data	No data	
2,4,6-Trichlorophenol	88-06-2	No data		No data	No data	
2,4-Dichlorophenol	120-83-2	No data		No data	No data	
2,4-Dimethylphenol	105-67-9	No data		No data	No data	
2,4-Dinitrophenol	51-28-5	No data		No data	No data	
2,4-Dinitrotoluene	121-14-2	4.69E+01[d]		No data	No data	4.69E+01
2,6-Dinitrotoluene	606-20-2	1.01E+02[d]		No data	No data	1.01E+02
2-Chlorophenol	95-57-8	No data		No data	No data	
2-Chlorotoluene	95-49-8	No data		No data	No data	
2-Nitrophenol	88-75-5	No data		No data	No data	
4,6-Dinitro-o-cresol	534-52-1	No data		No data	No data	
4-Chlorotoluene	106-43-4	No data		No data	No data	
4-Nitrophenol	100-02-7	No data		No data	No data	
alpha-Methylstyrene	98-83-9	No data		No data	No data	
Aniline	62-53-3	No data		No data	No data	
Benzotrichloride	98-07-7	No data		No data	No data	
Benzyl chloride	100-44-7	No data		No data	No data	
Bromobenzene	108-86-1	No data		No data	No data	
Chlorobenzene	108-90-7	No data		No data	No data	
Cumene	98-82-8	No data		No data	No data	
m-Cresol	108-39-4	No data		No data	No data	
n-Butyl benzene	104-51-8	No data		No data	No data	
Nitrobenzene	98-95-3	1.28E+03[d]		No data	No data	1.28E+03
n-Propyl benzene	103-65-1	No data		No data	No data	
o-Cresol	95-48-7	No data		No data	No data	
o-Dinitrobenzene	528-29-0	No data		No data	No data	
o-Nitroaniline	88-74-4	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
o-Toluidine	95-53-4	No data		No data	No data	
p-Chloroaniline	106-47-8	No data		No data	No data	
p-Cresol	106-44-5	No data		No data	No data	
Phenol	108-95-2	No data		No data	No data	
p-Nitrochlorobenzene	100-00-5	No data		No data	No data	
p-Toluidine	106-49-0	No data		No data	No data	
sec-Butyl benzene	135-98-8	No data		No data	No data	
tert-Butyl benzene	98-06-6	No data		No data	No data	
Toluene-2,6-diamine	823-40-5	No data		No data	No data	
Trimethyl benzene	25551-13-7	No data		No data	No data	
Other Light Semivolatile Compounds (molecular weight <200 g/mole)						
1,1'-Biphenyl	92-52-4	No data		No data	No data	
1,1-Dimethylhydrazine	57-14-7	No data		No data	No data	
1,2-Dimethylhydrazine	540-73-8	No data		No data	No data	
1,2-Diphenylhydrazine	122-66-7	No data		No data	No data	
1,3-Propane sultone	1120-71-4	No data		No data	No data	
2,4-Toluene diisocyante	584-84-9	No data		No data	No data	
2-Chloroacetophenone	532-27-4	No data		No data	No data	
2-Propenoic acid	79-10-7	No data		No data	No data	
4,4-Methylenedianiline	101-77-9	No data		No data	No data	
Acetophenone	98-86-2	No data		No data	No data	
Benzoic acid	65-85-0	No data		No data	No data	
bis(2-Chloroethoxy)methane	111-91-1	No data		No data	No data	
bis(2-Chloroethyl) ether	111-44-4	No data		No data	No data	
Chlorocyclopentadiene	41851-50-7	No data		No data	No data	
Cyclohexanol	108-93-0	No data		No data	No data	
Dichloroisopropyl ether	108-60-1	No data		No data	No data	
Dichloromethyl ether	542-88-1	No data		No data	No data	
Dichloropentadiene	no cas #	No data		No data	No data	
Dimethyl sulfate	77-78-1	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Dimethylaniline	121-69-7	No data		No data	No data	
Di-n-propylnitrosamine	621-64-7	No data		No data	No data	
Diphenyl ether	101-84-8	No data		No data	No data	
Epichlorohydrin	106-89-8	No data		No data	No data	
Ethyl carbamate (urethane)	51-79-6	No data		No data	No data	
Ethyl methanesulfonate	62-50-0	No data		No data	No data	
Ethylene dibromide	106-93-4	No data		No data	No data	
Ethylene glycol	107-21-1	No data		No data	No data	
Ethylene glycol monobutyl ether	111-76-2	No data		No data	No data	
Ethylene glycol monoethyl ether acetate	111-15-9	No data		No data	No data	
Ethylene thiourea	96-45-7	No data		No data	No data	
Furfural	98-01-1	No data		No data	No data	
Maleic hydrazide	123-33-1	No data		No data	No data	
Malononitrile	109-77-3	No data		No data	No data	
Methyl styrene (mixed isomers)	25013-15-4	No data		No data	No data	
Methylhydrazine	60-34-4	No data		No data	No data	
N,N-Diphenylamine	122-39-4	No data		No data	No data	
Nitric acid, propyl ester	627-13-4	No data		No data	No data	
N-Nitrosodi-n-butylamine	924-16-3	No data		No data	No data	
N-Nitrosomorpholine	59-89-2	No data		No data	No data	
N-Nitroso-N,N-dimethylamine	62-75-9	No data		No data	No data	
o-Anisidine	90-04-0	No data		No data	No data	
Oxalic acid	144-62-7	No data		No data	No data	
Phthalic anhydride	85-44-9	No data		No data	No data	
p-Phthalic acid	100-21-0	No data		No data	No data	
Pyridine	110-86-1	No data		No data	No data	
Quinoline	91-22-5	No data		No data	No data	
Quinone	106-51-4	No data		No data	No data	
Safrole	94-59-7	No data		No data	No data	
Tetrahydrofuran	109-99-9	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Other Heavy Semivolatile Compounds (molecular weight >200 g/mole)						
1,2,4,5-Tetrachlorobenzene	95-94-3	No data		No data	No data	
1,3,5-Trinitrobenzene	99-35-4	No data		No data	No data	
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No data		No data	No data	
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No data		No data	No data	
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No data		No data	No data	
3,3-Dichlorobenzidine	91-94-1	No data		No data	No data	
3,3'-Dimethoxybenzidine	119-90-4	No data		No data	No data	
4-Bromophenylphenyl ether	101-55-3	No data		No data	No data	
Ammonium perfluorooctanoate	3825-26-1	No data		No data	No data	
Azobenzene	103-33-3	No data		No data	No data	
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data	No data	
Captan	133-06-2	No data		No data	No data	
Chlorobenzilate	510-15-6	No data		No data	No data	
Dibutylphosphate	107-66-4	No data		No data	No data	
Dimethyl aminoazobenzene	60-11-7	No data		No data	No data	
Hexachlorobenzene	118-74-1	2.00E+01		No data	No data	2.00E+01
Hexachlorobutadiene	87-68-3	2.58E+02[d]		No data	No data	2.58E+02
Hexachlorocyclopentadiene	77-47-4	1.98E+02[d]		No data	No data	1.98E+02
Hexachloroethane	67-72-1	No data		No data	No data	
Hexachlorophene	70-30-4	6.34E+04[d]		No data	No data	6.34E+04
Hexamethylene-1,5-diisocyanate	822-06-0	No data		No data	No data	
Mirex	2385-85-5	No data		7.00E+00	No data	7.00E+00
Nitrofen	1836-75-5	No data		No data	No data	
Pentachlorobenzene	608-93-5	6.04E+02[d]		No data	No data	6.04E+02
Pentachloronitrobenzene	82-68-8	2.36E+03[d]		No data	No data	2.36E+03
Pentachlorophenol	87-86-5	7.00E+03		No data	No data	7.00E+03
Picric acid	88-89-1	No data		No data	No data	
Pronamide	23950-58-5	No data		No data	No data	
Strychnine	57-24-9	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Terphenyls	26140-60-3	No data		No data	No data	
Tributyl phosphate	126-73-8	No data		No data	No data	
Trifluralin	1582-09-8	No data		No data	No data	
Triphenylamine	603-34-9	No data		No data	No data	
Herbicides and Organochlorinated Pesticides						
2,4,5-T	93-76-5	No data		No data	No data	
2,4-D and esters	94-75-7	No data		No data	No data	
4,4-DDD	72-54-8	No data		8.00E+00[f]	2.00E+00	8.00E+00
4,4-DDE	72-55-9	5.00E+00		5.00E+00	2.20E+00	5.00E+00
4,4-DDT	50-29-3	No data		8.00E+00[f]	1.00E+00	8.00E+00
Aldrin	309-00-2	No data		2.00E+00	No data	2.00E+00
alpha-BHC	319-84-6	No data		6.00E+00	No data	6.00E+00
beta-BHC	319-85-7	No data		5.00E+00	No data	5.00E+00
Chlordane	57-74-9	No data		7.00E+00	5.00E-01[f]	7.00E+00
Delta-BHC	319-86-8	No data		No data	No data	
Dieldrin	60-57-1	No data		2.00E+00	2.00E-02[f]	2.00E+00
Endothall	145-73-3	No data		No data	No data	
Endrin	72-20-8	No data		3.00E+00	2.00E-02[f]	3.00E+00
gamma-BHC (Lindane)	58-89-9	No data		3.00E+00[e,g]	No data	3.00E+00
Heptachlor	76-44-8	3.08E-01		No data	No data	3.08E-01
Isodrin	465-73-6	No data		No data	No data	
Methoxychlor	72-43-5	No data		No data	No data	
Silvex (2,4,5-TP)	93-72-1	No data		No data	No data	
Toxaphene	8001-35-2	No data		No data	No data	
Inorganic Chemicals and Compounds (All units are in mg/kg)						
Metals						
Aluminum	7429-90-5	1.40E+04		No data	No data	1.40E+04
Antimony	7440-36-0	6.40E+01		No data	2.00E+00[f]	6.40E+01
Arsenic	7440-38-2	6.00E+00		6.00E+00	8.20E+00	6.00E+00
Barium	7440-39-3	2.00E+01[h]		No data	No data	2.00E+01

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Beryllium	7440-41-7	No data		No data	No data	
Bismuth	7440-69-9	No data		No data	No data	
Boron	7440-42-8	No data		No data	No data	
Cadmium	7440-43-9	6.00E-01		6.00E-01	1.20E+00	6.00E-01
Calcium	7440-70-2	No data		No data	No data	
Chromium (and VI)	18540-29-9	2.60E+01		2.60E+01	8.10E+01	2.60E+01
Cobalt	7440-48-4	No data		No data	No data	
Copper	7440-50-8	1.60E+01		1.60E+01	3.40E+01	1.60E+01
Iron	7439-89-6	No data		2.00E+04	No data	2.00E+04
Lead	7439-92-1	3.10E+01		3.10E+01	4.67E+01	3.10E+01
Lithium	7439-93-2	No data		No data	No data	
Magnesium	7439-95-4	No data		No data	No data	
Manganese	7439-96-5	No data		4.60E+02	No data	4.60E+02
Mercury	7439-97-6	2.00E-01		2.00E-01	1.50E-01	2.00E-01
Molybdenum	7439-98-7	No data		No data	No data	
Nickel	7440-02-0	1.60E+01		1.60E+01	2.09E+01	1.60E+01
Potassium	7440-09-7	No data		No data	No data	
Rhodium	7440-16-6	No data		No data	No data	
Selenium	7782-49-2	1.00E-01		No data	No data	1.00E-01
Silicon	7440-21-3	No data		No data	No data	
Silver	7440-22-4	4.50E+00		No data	1.00E+00	4.50E+00
Sodium	7440-23-5	No data		No data	No data	
Strontium	7440-24-6	No data		No data	No data	
Tantalum	7440-25-7	No data		No data	No data	
Thallium	7440-28-0	No data		No data	No data	
Tin	7440-31-5	No data		No data	No data	
Tungsten	7440-33-7	No data		No data	No data	
Uranium	7440-61-1	No data		No data	No data	
Vanadium	7440-62-2	No data		No data	No data	
Yttrium	7440-65-5	No data		No data	No data	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Zinc	7440-66-6	1.10E+02		1.20E+02	1.50E+02	1.10E+02
Zirconium	7440-67-7	No data		No data	No data	
Non-metals and Anions						
Ammonia/Ammonium	7664-41-7	No data		No data	No data	
Bromide	24959-67-9	No data		No data	No data	
Chloride	16887-00-6	No data		No data	No data	
Cyanide	57-12-5	1.00E-01[h]		No data	No data	1.00E-01
Fluoride	16984-48-8	No data		No data	No data	
Hydroxide	14280-30-9	No data		No data	No data	
Iodine	7553-56-2	No data		No data	No data	
Nitrate	14797-55-8	No data		No data	No data	
Nitrite	14797-65-0	No data		No data	No data	
Phosphate	14265-44-2	No data		No data	No data	
Phosphorus	7723-14-0	No data		No data	No data	
Sulfate	14808-79-8	No data		No data	No data	
Total Sulfur	63705-05-5	No data		No data	No data	
Priority Pollutants						
Carbon Dioxide	124-38-9	No data		No data	No data	
Nitrogen Dioxide	10102-44-0	No data		No data	No data	
Ozone	10028-15-6	No data		No data	No data	
Particulate Matter	No CAS #	No data		No data	No data	
Sulfur Dioxode	7446-09-5	No data		No data	No data	
Radionuclides[i]						
Actinium-227	14952-40-0	NA		NA	NA	
Americium-241	1596-10-2	NA		NA	NA	
Americium-243	14993-75-0	NA		NA	NA	
Antimony-125	14234-35-6	NA		NA	NA	
Barium-137	13981-97-0	NA		NA	NA	
Cadmium-113	None	NA		NA	NA	
Carbon-14	14762-75-5	NA		NA	NA	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Cesium-134	13967-70-9	NA		NA	NA	
Cesium-137	10045-97-3	NA		NA	NA	
Cobalt-60	10198-40-0	NA		NA	NA	
Curium-242	15510-73-3	NA		NA	NA	
Curium-243	15757-87-6	NA		NA	NA	
Curium-244	13981-15-2	NA		NA	NA	
Europium-152	14683-23-9	NA		NA	NA	
Europium-154	15585-10-1	NA		NA	NA	
Europium-155	14391-16-3	NA		NA	NA	
Iodine-129	15046-84-1	NA		NA	NA	
Neptunium-237	13994-20-2	NA		NA	NA	
Nickel-59	14336-70-0	NA		NA	NA	
Nickel-63	13981-37-8	NA		NA	NA	
Niobium-93	7440-03-1	NA		NA	NA	
Plutonium-238	13981-16-3	NA		NA	NA	
Plutonium-239	15117-48-3	NA		NA	NA	
Plutonium-240	14119-33-6	NA		NA	NA	
Plutonium-241	14119-32-5	NA		NA	NA	
Plutonium-242	13982-10-0	NA		NA	NA	
Protactinium-231	14331-85-2	NA		NA	NA	
Radium-226	13982-63-3	NA		NA	NA	
Radium-228	15262-20-1	NA		NA	NA	
Ruthenium-106	13967-48-1	NA		NA	NA	
Samarium-151	15715-94-3	NA		NA	NA	
Selenium-79	None	NA		NA	NA	
Strontium-90	10098-97-2	NA		NA	NA	
Technetium-99	14133-79-7	NA		NA	NA	
Thorium-229	15594-54-4	NA		NA	NA	
Thorium-232	7440-29-1	NA		NA	NA	
Tin-126	15832-50-5	NA		NA	NA	

Table C3-8. Sediment TRVs for Sediment-Dwelling Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Jones et al. 1997[b]		Recommended TRV[c]
				Ontario MOE (LOW)	NOAA (ER-L)	
Tritium	10028-17-8	NA		NA	NA	
Uranium-232	14158-29-3	NA		NA	NA	
Uranium-233	13968-55-3	NA		NA	NA	
Uranium-234	13966-29-5	NA		NA	NA	
Uranium-235	15117-96-1	NA		NA	NA	
Uranium-236	13982-70-2	NA		NA	NA	
Uranium-238	7440-61-1	NA		NA	NA	
Yttrium-90	10098-91-6	NA		NA	NA	
Zirconium-93	15751-77-6	NA		NA	NA	

NA = Not applicable

[a] Published in Appendix E of EPA 1999, Table E-3.

[b] Published in Tables 1 and 4 of Jones et al. (1997)

[c] Order of preference is EPA 1999, then MOE (Low), then NOAA (ER-L)

[d] TRV was calculated using EqP approach (EPA 1993) assuming a fractional organic content of 0.04

[e] Denotes tentative guideline

[f] Source document is Long and Morgan (1991)

[g] 10th percentile of screening level concentration

[h] TRV is a U.S. EPA Region 5 guideline value for classification of sediments for determining the suitability of dredged sediments for open water disposal, as cited in Hall and Suter II (1994)

[i] TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for sediment-dwelling biota from all radionuclides combined cannot exceed 1 rad/d.

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Organic Compounds (All units are in ug/L)						
Aromatic Halogenated Hydrocarbons						
4-Chloro-3-methylphenol	59-50-7	No data		No data	No data	
2,3,4,6-Tetrachlorophenol	58-90-2	No data		No data	No data	
Aromatic Nonhalogenated Hydrocarbons						
2-Nitrotoluene	88-72-2	No data		No data	No data	
4-Nitrobiphenyl	92-93-3	No data		No data	No data	
Benzaldehyde	100-52-7	No data		No data	No data	
Benzene	71-43-2	No data		No data	1.30E+02	1.30E+02
Benzyl alcohol	100-51-6	No data		No data	8.60E+00	8.60E+00
Ethyl benzene	100-41-4	No data		No data	7.30E+00	7.30E+00
m-Xylene	108-38-3	No data		No data	1.80E+00[d]	1.80E+00
o-Xylene	95-47-6	No data		No data	No data	
p-Xylene	106-42-3	No data		No data	No data	
Styrene	100-42-5	No data		No data	No data	
Toluene	108-88-3	No data		No data	9.80E+00	9.80E+00
Non-aromatic Nonhalogenated Hydrocarbons						
1,2-Epoxybutane	106-88-7	No data		No data	No data	
1,3-Butadiene	106-99-0	No data		No data	No data	
1,4-Dioxane	123-91-1	6.21E+04[e]		No data	No data	6.21E+04
1-Methylpropyl alcohol	78-92-2	No data		No data	No data	
1-Nitropropane	108-03-2	No data		No data	No data	
2,2,4-Trimethylpentane	540-84-1	No data		No data	No data	
2-Butanone	78-93-3	No data		No data	1.40E+00	1.40E+00
2-Butenaldehyde (2-Butenal)	4170-30-3	No data		No data	No data	
2-Ethoxyethanol	110-80-5	No data		No data	No data	
2-Heptanone	110-43-0	No data		No data	No data	
2-Hexanone	591-78-6	No data		No data	9.90E+01	9.90E+01

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
2-Methoxyethanol	109-86-4	No data		No data	No data	
2-Methyl-2-propanol	75-65-0	No data		No data	No data	
2-Methyl-2-propenenitrile	126-98-7	No data		No data	No data	
2-Methylaziridine	75-55-8	No data		No data	No data	
2-Methylpropyl alcohol	78-83-1	No data		No data	No data	
2-Pentanone	107-87-9	No data		No data	No data	
2-Propanone (Acetone)	67-64-1	1.50E+03[e]		No data	1.50E+03[e]	1.50E+03
2-Propene-1-ol	107-18-6	No data		No data	No data	
2-Propyl alcohol	67-63-0	No data		No data	No data	
3-Heptanone	106-35-4	No data		No data	No data	
3-Methyl-1-butanol	123-51-3	No data		No data	No data	
3-Methyl-2-butanone	563-80-4	No data		No data	No data	
3-Pentanone	96-22-0	No data		No data	No data	
4-Heptanone	123-19-3	No data		No data	No data	
4-Methyl-2-pentanone	108-10-1	No data		No data	1.70E+02	1.70E+02
4-Methyl-3-penten-2-one	141-79-7	No data		No data	No data	
5-Methyl-2-hexanone	110-12-3	No data		No data	No data	
Acetaldehyde	75-07-0	No data		No data	No data	
Acetamide	60-35-5	No data		No data	No data	
Acetic acid	64-19-7	No data		No data	No data	
Acetic acid ethyl ester	141-78-6	No data		No data	No data	
Acetic acid n-butyl ester	123-86-4	No data		No data	No data	
Acetonitrile	75-05-8	No data		No data	No data	
Acrolein	107-02-8	No data		No data	No data	
Acrylonitrile	107-13-1	2.60E+02[e]		No data	No data	2.60E+02
Bis(isopropyl)ether	108-20-3	No data		No data	No data	
Butane	106-97-8	No data		No data	No data	
Carbon disulfide	75-15-0	No data		No data	9.20E-01	9.20E-01
Cyanogen	460-19-5	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Cyclohexane	110-82-7	No data		No data	No data	
Cyclohexanone	108-94-1	No data		No data	No data	
Cyclohexene	110-83-8	No data		No data	No data	
Cyclopentane	287-92-3	No data		No data	No data	
Ethyl alcohol	64-17-5	No data		No data	No data	
Ethyl ether	60-29-7	No data		No data	No data	
Ethyl methacrylate	97-63-2	No data		No data	No data	
Formaldehyde	50-00-0	4.96E+01[e]		No data	No data	4.96E+01
Formamide	75-12-7	No data		No data	No data	
Formic acid	64-18-6	No data		No data	No data	
Formic acid, methyl ester	107-31-3	No data		No data	No data	
Glycidylaldehyde	765-34-4	No data		No data	No data	
Methyl acetate	79-20-9	No data		No data	No data	
Methyl alcohol	67-56-1	No data		No data	No data	
Methyl isocyanate	624-83-9	No data		No data	No data	
Methyl methacrylate	80-62-6	No data		No data	No data	
Methyl tert-butyl ether	1634-04-4	No data		No data	No data	
Methylacetylene	74-99-7	No data		No data	No data	
Methylcyclohexane	108-87-2	No data		No data	No data	
N,N-Dimethylacetamide	127-19-5	No data		No data	No data	
n-Butyl alcohol	71-36-3	No data		No data	No data	
n-Heptane	142-82-5	No data		No data	No data	
n-Hexane	110-54-3	No data		No data	5.80E-01	5.80E-01
Nitromethane	75-52-5	No data		No data	No data	
n-Nonane	111-84-2	No data		No data	No data	
n-Octane	111-65-9	No data		No data	No data	
n-Pentane	109-66-0	No data		No data	No data	
n-Propionaldehyde	123-38-6	No data		No data	No data	
n-Propyl alcohol	71-23-8	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
n-Valeraldehyde	110-62-3	No data		No data	No data	
Oxirane	75-21-8	No data		No data	No data	
p-Cymene	99-87-6	No data		No data	No data	
Phosgene	75-44-5	No data		No data	No data	
Propargyl alcohol	107-19-7	No data		No data	No data	
Propionic acid	79-09-4	No data		No data	No data	
Propionitrile	107-12-0	No data		No data	No data	
Propylene gylcol monomethyl ether	107-98-2	No data		No data	No data	
p-tert-Butyltoluene	98-51-1	No data		No data	No data	
Triethylamine	121-44-8	No data		No data	No data	
Trimethylamine	75-50-3	No data		No data	No data	
Vinyl acetate	108-05-4	No data		No data	1.60E+01	1.60E+01
Non-aromatic Halogenated Hydrocarbons						
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	No data		No data	No data	
1,1,1,2-Tetrachloroethane	630-20-6	No data		No data	No data	
1,1,1-Trichloroethane	71-55-6	No data		No data	1.10E+01	1.10E+01
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	No data		No data	No data	
1,1,2,2-Tetrachloroethane	79-34-5	No data		No data	6.10E+02	6.10E+02
1,1,2,2-Tetrachloroethene	127-18-4	No data		No data	No data	
1,1,2-Trichloroethane	79-00-5	No data		No data	1.20E+03	1.20E+03
1,1,2-Trichloroethylene	79-01-6	No data		No data	No data	
1,1-Dichloroethane	75-34-3	No data		No data	4.70E+01	4.70E+01
1,1-Dichloroethene	75-35-4	No data		No data	2.50E+01	2.50E+01
1,2,2-Trichloro-1,1,2-trifluoroethane	76-13-1	No data		No data	No data	
1,2,3-Trichloropropane	96-18-4	No data		No data	No data	
1,2-Dibromo-3-chloropropane	96-12-8	No data		No data	No data	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	No data		No data	No data	
1,2-Dichloroethane	107-06-2	No data		No data	9.10E+02	9.10E+02
1,2-Dichloroethylene	540-59-0	No data		No data	5.90E+02	5.90E+02

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
1,2-Dichloropropane	78-87-5	No data		No data	No data	
1,3-Dichloropropene	542-75-6	No data		No data	5.50E-02	5.50E-02
1,4-Dichloro-2-butene	764-41-0	No data		No data	No data	
1-Chloroethene	75-01-4	No data		No data	No data	
2,2-Dichloropropionic acid	75-99-0	No data		No data	No data	
2-Chloropropane	75-29-6	No data		No data	No data	
3-Chloropropene (allyl chloride)	107-05-1	No data		No data	No data	
Bromochloromethane	74-97-5	No data		No data	No data	
Bromodichloromethane	75-27-4	No data		No data	No data	
Bromoethene	593-60-2	No data		No data	No data	
Bromoform	75-25-2	No data		No data	No data	
Bromomethane	74-83-9	No data		No data	No data	
Carbon tetrachloride	56-23-5	No data		No data	9.80E+00	9.80E+00
Chlorodibromomethane	124-48-1	No data		No data	No data	
Chlorodifluoromethane	75-45-6	No data		No data	No data	
Chloroethane	75-00-3	No data		No data	No data	
Chloroform	67-66-3	2.88E+01[e]		No data	2.80E+01	2.88E+01
Chloromethane	74-87-3	No data		No data	No data	
Chloropentafluoroethane	76-15-3	No data		No data	No data	
cis-1,2-Dichloroethene	156-59-2	No data		No data	No data	
cis-1,3-Dichloropropene	10061-01-5	No data		No data	No data	
Cyanogen bromide	506-68-3	No data		No data	No data	
Cyanogen chloride	506-77-4	No data		No data	No data	
Dichlorodifluoromethane	75-71-8	No data		No data	No data	
Dichlorofluoromethane	75-43-4	No data		No data	No data	
Dichloromethane	75-09-2	No data		No data	No data	
Difluorodibromomethane	75-61-6	No data		No data	No data	
Hexafluoroacetone	684-16-2	No data		No data	No data	
Iodomethane	74-88-4	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Methylene bromide	74-95-3	No data		No data	No data	
Pentachloroethane	76-01-7	No data		No data	No data	
trans-1,2-Dichloroethene	156-60-5	No data		No data	No data	
trans-1,3-Dichloropropene	10061-02-6	No data		No data	No data	
Trichloroacetic acid	76-03-9	No data		No data	No data	
Trichlorofluoroethane	27154-33-2	No data		No data	No data	
Trichlorofluoromethane	75-69-4	No data		No data	No data	
Trifluorobromomethane	75-63-8	No data		No data	No data	
Dioxin and Furan Compounds						
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	35822-46-9	No data		No data	No data	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	No data		No data	No data	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	No data		No data	No data	
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	39227-28-6	No data		No data	No data	
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	No data		No data	No data	
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	57653-85-7	No data		No data	No data	
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	No data		No data	No data	
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	19408-74-3	No data		No data	No data	
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	No data		No data	No data	
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	40321-76-4	No data		No data	No data	
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	No data		No data	No data	
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	No data		No data	No data	
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	No data		No data	No data	
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1746-01-6	3.80E-06[e]		No data	No data	3.80E-06
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	No data		No data	No data	
Dibenzofuran	132-64-9	No data		No data	3.70E+00	3.70E+00
Octachlorodibenzo(p)dioxin	3268-87-9	No data		No data	No data	
Octachlorodibenzofuran	39001-02-0	No data		No data	No data	
PCBs						
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	No data		No data	No data	
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	No data		No data	No data	
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	No data		No data	No data	
2,3,3',4,4',5,5'-Heptachlorobiphenyl	no cas #	No data		No data	No data	
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	No data		No data	No data	
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	No data		No data	No data	
2',3,4,4',5-Pentachlorobiphenyl	no cas #	No data		No data	No data	
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	No data		No data	No data	
2,3',4,4',5,5'-Hexachlorobiphenyl	no cas #	No data		No data	No data	
3,3',4,4',5-Pentachlorobiphenyl	no cas #	No data		No data	No data	
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	No data		No data	No data	
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	No data		No data	No data	
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	No data		No data	No data	
Polychlorinated biphenyls (PCBs)[k]	1336-36-3	No data		No data	1.40E+01[f]	1.40E+01
Phthalates						
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	3.00E+00[e]		No data	3.00E+00	3.00E+00
Butylbenzyl phthalate	85-68-7	No data		No data	1.90E+01[g]	1.90E+01
Dibutyl phthalate	84-74-2	No data		No data	No data	
Diethyl phthalate	84-66-2	No data		No data	2.10E+02	2.10E+02
Dimethylphthalate	131-11-3	No data		No data	No data	
n-Dioctyl phthalate	117-84-0	3.20E+02[e]		No data	No data	3.20E+02
Light Polycyclic Aromatic Hydrocarbons (MW <200 g/mole)						
2-Chloronapthalene	91-58-7	No data		No data	No data	
2-Methyl naphthalene	91-57-6	No data		No data	No data	
5-Nitroacenaphthene	602-87-9	No data		No data	No data	
Acenaphthene	83-32-9	No data		2.30E+01[h]	No data	2.30E+01
Acenaphthylene	208-96-8	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Anthracene	120-12-7	No data		No data	7.30E-01	7.30E-01
Fluorene	86-73-7	No data		No data	3.90E+00[g]	3.90E+00
Indene	95-13-6	No data		No data	No data	
Naphthalene	91-20-3	No data		No data	1.20E+01	1.20E+01
Phenanthrene	85-01-8	No data		6.30E+00[f]	No data	6.30E+00
Pyrene	129-00-0	No data		No data	No data	
Heavy Polycyclic Aromatic Hydrocarbons (MW >200 g/mole)						
3-Methylcholanthrene	56-49-5	No data		No data	No data	
5-Methylchrysene	3697-24-3	No data		No data	No data	
Benzo(a)anthracene	56-55-3	2.70E-02		No data	2.70E-02	2.70E-02
Benzo(a)pyrene	50-32-8	1.40E-02		No data	1.40E-02	1.40E-02
Benzo(b)fluoranthene	205-99-2	2.70E-02		No data	No data	2.70E-02
Benzo(e)pyrene	192-97-2	No data		No data	No data	
Benzo(g,h,i)perylene	191-24-2	No data		No data	No data	
Benzo(j)fluoranthene	205-82-3	No data		No data	No data	
Benzo(k)fluoranthene	207-08-9	2.70E-02		No data	No data	2.70E-02
Benzo[a,i]pyrene	191-30-0	No data		No data	No data	
Chrysene	218-01-9	2.70E-02		No data	No data	2.70E-02
Dibenz(a,h)anthracene	53-70-3	2.70E-02		No data	No data	2.70E-02
Dibenz[a,h]acridine	226-36-8	No data		No data	No data	
Dibenz[a,j]acridine	224-42-0	No data		No data	No data	
Dibenzo(a,e)fluoranthene	5385-75-1	No data		No data	No data	
Dibenzo(a,h)fluoranthene	no cas #	No data		No data	No data	
Dibenzo[a,e]pyrene	192-65-4	No data		No data	No data	
Dibenzo[a,h]pyrene	189-64-0	No data		No data	No data	
Dibenzo[a,i]pyrene	189-55-9	No data		No data	No data	
Fluoranthene	206-44-0	No data		6.16E+00[h]	No data	6.16E+00

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Hexachloronaphthalene	1335-87-1	No data		No data	No data	
Indeno(1,2,3-cd)pyrene	193-39-5	2.70E-02		No data	No data	2.70E-02
Octachloronaphthalene	2234-13-1	No data		No data	No data	
Pentachloronaphthalene	1321-64-8	No data		No data	No data	
Tetrachloronaphthalene	1335-88-2	No data		No data	No data	
Trichloronaphthalene	1321-65-9	No data		No data	No data	
Light Substituted Benzene Compounds (MW <200 g/mole)						
1,2,3-Trichlorobenzene	87-61-6	No data		No data	No data	
1,2,4-Trichlorobenzene	120-82-1	No data		No data	1.10E+02[d]	1.10E+02
1,2,4-Trimethyl benzene	95-63-6	No data		No data	No data	
1,2-Dichlorobenzene	95-50-1	No data		No data	1.40E+01[g]	1.40E+01
1,3,5-Trimethyl benzene	108-67-8	No data		No data	No data	
1,3-Dichlorobenzene	541-73-1	No data		No data	7.10E+01[g]	7.10E+01
1,3-Dinitrobenzene	99-65-0	2.60E+01[e]		No data	No data	2.60E+01
1,4-Dichlorobenzene	106-46-7	No data		No data	1.50E+01[g]	1.50E+01
1,4-Dinitrobenzene	100-25-4	No data		No data	No data	
2,4,5-Trichlorophenol	95-95-4	No data		No data	No data	
2,4,6-Trichlorophenol	88-06-2	No data		No data	No data	
2,4-Dichlorophenol	120-83-2	No data		No data	No data	
2,4-Dimethylphenol	105-67-9	No data		No data	No data	
2,4-Dinitrophenol	51-28-5	No data		No data	No data	
2,4-Dinitrotoluene	121-14-2	2.30E+01[e]		No data	No data	2.30E+01
2,6-Dinitrotoluene	606-20-2	6.00E+01[e]		No data	No data	6.00E+01
2-Chlorophenol	95-57-8	No data		No data	No data	
2-Chlorotoluene	95-49-8	No data		No data	No data	
2-Nitrophenol	88-75-5	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
4,6-Dinitro-o-cresol	534-52-1	No data		No data	No data	
4-Chlorotoluene	106-43-4	No data		No data	No data	
4-Nitrophenol	100-02-7	No data		No data	3.00E+02	3.00E+02
alpha-Methylstyrene	98-83-9	No data		No data	No data	
Aniline	62-53-3	No data		No data	No data	
Benzotrichloride	98-07-7	No data		No data	No data	
Benzyl chloride	100-44-7	No data		No data	No data	
Bromobenzene	108-86-1	No data		No data	No data	
Chlorobenzene	108-90-7	No data		No data	6.40E+01	6.40E+01
Cumene	98-82-8	No data		No data	No data	
m-Cresol	108-39-4	No data		No data	No data	
n-Butyl benzene	104-51-8	No data		No data	No data	
Nitrobenzene	98-95-3	2.70E+02[e]		No data	No data	2.70E+02
n-Propyl benzene	103-65-1	No data		No data	No data	
o-Cresol	95-48-7	No data		No data	No data	
o-Dinitrobenzene	528-29-0	No data		No data	No data	
o-Nitroaniline	88-74-4	No data		No data	No data	
o-Toluidine	95-53-4	No data		No data	No data	
p-Chloroaniline	106-47-8	No data		No data	No data	
p-Cresol	106-44-5	No data		No data	No data	
Phenol	108-95-2	No data		1.10E+02[d]	No data	1.10E+02
p-Nitrochlorobenzene	100-00-5	No data		No data	No data	
p-Toluidine	106-49-0	No data		No data	No data	
sec-Butyl benzene	135-98-8	No data		No data	No data	
tert-Butyl benzene	98-06-6	No data		No data	No data	
Toluene-2,6-diamine	823-40-5	No data		No data	No data	
Trimethyl benzene	25551-13-7	No data		No data	No data	
Other Light Semivolatile Compounds (MW <200 g/mole)						

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
1,1'-Biphenyl	92-52-4	No data		No data	No data	
1,1-Dimethylhydrazine	57-14-7	No data		No data	No data	
1,2-Dimethylhydrazine	540-73-8	No data		No data	No data	
1,2-Diphenylhydrazine	122-66-7	No data		No data	No data	
1,3-Propane sultone	1120-71-4	No data		No data	No data	
2,4-Toluene diisocyante	584-84-9	No data		No data	No data	
2-Chloroacetophenone	532-27-4	No data		No data	No data	
2-Propenoic acid	79-10-7	No data		No data	No data	
4,4-Methylenedianiline	101-77-9	No data		No data	No data	
Acetophenone	98-86-2	No data		No data	No data	
Benzoic acid	65-85-0	No data		No data	4.20E+01	4.20E+01
bis(2-Chloroethoxy)methane	111-91-1	No data		No data	No data	
bis(2-Chloroethyl) ether	111-44-4	No data		No data	No data	
Chlorocyclopentadiene	41851-50-7	No data		No data	No data	
Cyclohexanol	108-93-0	No data		No data	No data	
Dichloroisopropyl ether	108-60-1	No data		No data	No data	
Dichloromethyl ether	542-88-1	No data		No data	No data	
Dichloropentadiene	no cas #	No data		No data	No data	
Dimethyl sulfate	77-78-1	No data		No data	No data	
Dimethylaniline	121-69-7	No data		No data	No data	
Di-n-propylnitrosamine	621-64-7	No data		No data	No data	
Diphenyl ether	101-84-8	No data		No data	No data	
Epichlorohydrin	106-89-8	No data		No data	No data	
Ethyl carbamate (urethane)	51-79-6	No data		No data	No data	
Ethyl methanesulfonate	62-50-0	No data		No data	No data	
Ethylene dibromide	106-93-4	No data		No data	No data	
Ethylene glycol	107-21-1	No data		No data	No data	
Ethylene glycol monobutyl ether	111-76-2	No data		No data	No data	
Ethylene glycol monoethyl ether acetate	111-15-9	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Ethylene thiourea	96-45-7	No data		No data	No data	
Furfural	98-01-1	No data		No data	No data	
Maleic hydrazide	123-33-1	No data		No data	No data	
Malononitrile	109-77-3	No data		No data	No data	
Methyl styrene (mixed isomers)	25013-15-4	No data		No data	No data	
Methylhydrazine	60-34-4	No data		No data	No data	
N,N-Diphenylamine	122-39-4	No data		No data	No data	
Nitric acid, propyl ester	627-13-4	No data		No data	No data	
N-Nitrosodi-n-butylamine	924-16-3	No data		No data	No data	
N-Nitrosomorpholine	59-89-2	No data		No data	No data	
N-Nitroso-N,N-dimethylamine	62-75-9	No data		No data	No data	
o-Anisidine	90-04-0	No data		No data	No data	
Oxalic acid	144-62-7	No data		No data	No data	
Phthalic anhydride	85-44-9	No data		No data	No data	
p-Phthalic acid	100-21-0	No data		No data	No data	
Pyridine	110-86-1	No data		No data	No data	
Quinoline	91-22-5	No data		No data	No data	
Quinone	106-51-4	No data		No data	No data	
Safrole	94-59-7	No data		No data	No data	
Tetrahydrofuran	109-99-9	No data		No data	No data	
Other Heavy Semivolatile Compounds (MW >200 g/mole)						
1,2,4,5-Tetrachlorobenzene	95-94-3	No data		No data	No data	
1,3,5-Trinitrobenzene	99-35-4	No data		No data	No data	
2,6-Bis(tert-butyl)-4-methylphenol	128-37-0	No data		No data	No data	
2-Cyclohexyl-4,6-dinitrophenol	131-89-5	No data		No data	No data	
2-sec-Butyl-4,6-dinitrophenol	88-85-7	No data		No data	No data	
3,3-Dichlorobenzidine	91-94-1	No data		No data	No data	
3,3'-Dimethoxybenzidine	119-90-4	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
4-Bromophenylphenyl ether	101-55-3	No data		No data	1.50E+00[g]	1.50E+00
Ammonium perfluorooctanoate	3825-26-1	No data		No data	No data	
Azobenzene	103-33-3	No data		No data	No data	
Bis(3-tert-butyl-4-hydroxy-6-methyl-phenyl)sulfide	96-69-5	No data		No data	No data	
Captan	133-06-2	No data		No data	No data	
Chlorobenzilate	510-15-6	No data		No data	No data	
Dibutylphosphate	107-66-4	No data		No data	No data	
Dimethyl aminoazobenzene	60-11-7	No data		No data	No data	
Hexachlorobenzene	118-74-1	3.68E+00		No data	No data	3.68E+00
Hexachlorobutadiene	87-68-3	9.30E-01[e]		No data	No data	9.30E-01
Hexachlorocyclopentadiene	77-47-4	5.20E-01[e]		No data	No data	5.20E-01
Hexachloroethane	67-72-1	No data		No data	1.20E+00[g]	1.20E+00
Hexachlorophene	70-30-4	8.80E-01[e]		No data	No data	8.80E-01
Hexamethylene-1,5-diisocyanate	822-06-0	No data		No data	No data	
Mirex	2385-85-5	No data		No data	No data	
Nitrofen	1836-75-5	No data		No data	No data	
Pentachlorobenzene	608-93-5	4.70E-01[e]		No data	4.70E-01[g]	4.70E-01
Pentachloronitrobenzene	82-68-8	1.00E+01[e]		No data	No data	1.00E+01
Pentachlorophenol	87-86-5	1.50E+01		No data	No data	1.50E+01
Picric acid	88-89-1	No data		No data	No data	
Pronamide	23950-58-5	No data		No data	No data	
Strychnine	57-24-9	No data		No data	No data	
Terphenyls	26140-60-3	No data		No data	No data	
Tributyl phosphate	126-73-8	No data		No data	No data	
Trifluralin	1582-09-8	No data		No data	No data	
Triphenylamine	603-34-9	No data		No data	No data	
Herbicides and Organochlorinated Pesticides						

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
2,4,5-T	93-76-5	No data		No data	No data	
2,4-D and esters	94-75-7	No data		No data	No data	
4,4-DDD	72-54-8	No data		No data	1.10E-02	1.10E-02
4,4-DDE	72-55-9	1.05E+01		No data	1.10E-02	1.05E+01
4,4-DDT	50-29-3	No data		No data	1.30E-02	1.30E-02
Aldrin	309-00-2	No data		No data	No data	
alpha-BHC	319-84-6	No data		No data	2.20E+00	2.20E+00
beta-BHC	319-85-7	No data		No data	2.20E+00	2.20E+00
Chlordane	57-74-9	No data		1.70E-01[h]	No data	1.70E-01
Delta-BHC	319-86-8	No data		No data	2.20E+00	2.20E+00
Dieldrin	60-57-1	No data		6.20E-02[h]	No data	6.20E-02
Endothall	145-73-3	No data		No data	No data	
Endrin	72-20-8	No data		6.10E-02[h]	No data	6.10E-02
gamma-BHC (Lindane)	58-89-9	No data		8.00E-02	No data	8.00E-02
Heptachlor	76-44-8	3.80E-03		No data	6.90E-03[d,f]	3.80E-03
Isodrin	465-73-6	No data		No data	No data	
Methoxychlor	72-43-5	No data		No data	1.90E-02[d]	1.90E-02
Silvex (2,4,5-TP)	93-72-1	No data		No data	No data	
Toxaphene	8001-35-2	No data		No data	No data	
Inorganic Chemicals and Compounds (All units are in mg/L)						
Metals						
Aluminum	7429-90-5	8.70E-02		8.70E+01	No data	8.70E+01
Antimony	7440-36-0	3.00E-02		No data	3.00E+01[j]	3.00E-02
Arsenic	7440-38-2	1.50E-01		1.90E+02	No data	1.90E+02
Barium	7440-39-3	1.40E-03[i]		No data	4.00E+00	1.40E-03
Beryllium	7440-41-7	6.60E-04		No data	6.60E-01	6.60E-04

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Bismuth	7440-69-9	No data		No data	No data	
Boron	7440-42-8	No data		No data	1.60E+00	1.60E+00
Cadmium	7440-43-9	2.20E-03		1.10E+00	No data	1.10E+00
Calcium	7440-70-2	No data		No data	No data	
Chromium (and VI)	18540-29-9	1.10E-02		1.10E+01	No data	1.10E+01
Cobalt	7440-48-4	No data		No data	2.30E+01	2.30E+01
Copper	7440-50-8	9.00E-03		1.20E+01	No data	1.20E+01
Iron	7439-89-6	No data		1.00E+03	No data	1.00E+03
Lead	7439-92-1	2.50E-03		3.20E+00	No data	3.20E+00
Lithium	7439-93-2	No data		No data	1.40E+01	1.40E+01
Magnesium	7439-95-4	No data		No data	No data	
Manganese	7439-96-5	No data		No data	1.20E+02	1.20E+02
Mercury	7439-97-6	2.80E-06		No data	1.30E+00[f]	2.80E-06
Molybdenum	7439-98-7	No data		No data	3.70E+02	3.70E+02
Nickel	7440-02-0	5.20E-02		1.60E+02	No data	1.60E+02
Potassium	7440-09-7	No data		No data	No data	
Rhodium	7440-16-6	No data		No data	No data	
Selenium	7782-49-2	5.00E-03		5.00E+00	No data	5.00E+00
Silicon	7440-21-3	No data		No data	No data	
Silver	7440-22-4	1.20E-04		No data	3.60E-01	1.20E-04
Sodium	7440-23-5	No data		No data	No data	
Strontium	7440-24-6	No data		No data	1.50E+03	1.50E+03
Tantalum	7440-25-7	No data		No data	No data	
Thallium	7440-28-0	4.00E-03		No data	1.20E+01	4.00E-03
Tin	7440-31-5	No data		No data	7.30E+01	7.30E+01
Tungsten	7440-33-7	No data		No data	No data	
Uranium	7440-61-1	No data		No data	2.60E+00	2.60E+00
Vanadium	7440-62-2	No data		No data	2.00E+01	2.00E+01
Yttrium	7440-65-5	No data		No data	No data	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Zinc	7440-66-6	1.18E-01		1.10E+02	No data	1.10E+02
Zirconium	7440-67-7	No data		No data	1.70E+01	1.70E+01
Non-metals and Anions						
Ammonia/Ammonium	7664-41-7	No data		No data	No data	
Bromide	24959-67-9	No data		No data	No data	
Chloride	16887-00-6	No data		No data	No data	
Cyanide	57-12-5	5.20E-03[i]		5.20E+00	No data	5.20E+00
Fluoride	16984-48-8	No data		No data	No data	
Hydroxide	14280-30-9	No data		No data	No data	
Iodine	7553-56-2	No data		No data	No data	
Nitrate	14797-55-8	No data		No data	No data	
Nitrite	14797-65-0	No data		No data	No data	
Phosphate	14265-44-2	No data		No data	No data	
Phosphorus	7723-14-0	No data		No data	No data	
Sulfate	14808-79-8	No data		No data	No data	
Total Sulfur	63705-05-5	No data		No data	No data	
Priority Pollutants						
Carbon Dioxide	124-38-9	No data		No data	No data	
Nitrogen Dioxide	10102-44-0	No data		No data	No data	
Ozone	10028-15-6	No data		No data	No data	
Particulate Matter	No CAS #	No data		No data	No data	
Sulfur Dioxode	7446-09-5	No data		No data	No data	
Radionuclides[k]						
Actinium-227	14952-40-0	NA		NA	NA	
Americium-241	1596-10-2	NA		NA	NA	
Americium-243	14993-75-0	NA		NA	NA	
Antimony-125	14234-35-6	NA		NA	NA	
Barium-137	13981-97-0	NA		NA	NA	
Cadmium-113	None	NA		NA	NA	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Carbon-14	14762-75-5	NA		NA	NA	
Cesium-134	13967-70-9	NA		NA	NA	
Cesium-137	10045-97-3	NA		NA	NA	
Cobalt-60	10198-40-0	NA		NA	NA	
Curium-242	15510-73-3	NA		NA	NA	
Curium-243	15757-87-6	NA		NA	NA	
Curium-244	13981-15-2	NA		NA	NA	
Europium-152	14683-23-9	NA		NA	NA	
Europium-154	15585-10-1	NA		NA	NA	
Europium-155	14391-16-3	NA		NA	NA	
Iodine-129	15046-84-1	NA		NA	NA	
Neptunium-237	13994-20-2	NA		NA	NA	
Nickel-59	14336-70-0	NA		NA	NA	
Nickel-63	13981-37-8	NA		NA	NA	
Niobium-93	7440-03-1	NA		NA	NA	
Plutonium-238	13981-16-3	NA		NA	NA	
Plutonium-239	15117-48-3	NA		NA	NA	
Plutonium-240	14119-33-6	NA		NA	NA	
Plutonium-241	14119-32-5	NA		NA	NA	
Plutonium-242	13982-10-0	NA		NA	NA	
Protactinium-231	14331-85-2	NA		NA	NA	
Radium-226	13982-63-3	NA		NA	NA	
Radium-228	15262-20-1	NA		NA	NA	
Ruthenium-106	13967-48-1	NA		NA	NA	
Samarium-151	15715-94-3	NA		NA	NA	
Selenium-79	None	NA		NA	NA	
Strontium-90	10098-97-2	NA		NA	NA	
Technetium-99	14133-79-7	NA		NA	NA	
Thorium-229	15594-54-4	NA		NA	NA	

Table C3-9. Surface Water TRVs for Aquatic Biota

Constituent of Potential Concern	CAS Registry Number	EPA 1999[a]	Ecology Guidance TRV	Compiled by Suter & Tsao 1996[b]		Recommended TRV[c]
				NAWQC Chronic	Tier II Chronic	
Thorium-232	7440-29-1	NA		NA	NA	
Tin-126	15832-50-5	NA		NA	NA	
Tritium	10028-17-8	NA		NA	NA	
Uranium-232	14158-29-3	NA		NA	NA	
Uranium-233	13968-55-3	NA		NA	NA	
Uranium-234	13966-29-5	NA		NA	NA	
Uranium-235	15117-96-1	NA		NA	NA	
Uranium-236	13982-70-2	NA		NA	NA	
Uranium-238	7440-61-1	NA		NA	NA	
Yttrium-90	10098-91-6	NA		NA	NA	
Zirconium-93	15751-77-6	NA		NA	NA	

NA = Not applicable

[a] Published in Appendix E of EPA (1999), Table E-1

[b] Published in Table 1 of Suter and Tsao (1996)

[c] Order of preference is: NAWQC, then EPA 1999, then Tier II chronic value.

[d] Values calculated by the Great Lakes Water Quality Initiative (EPA 1993d)

[e] TRV was calculated using EqP approach (EPA 1993), assuming a fractional organic content of 0.04

[f] This value is based on final residue values

[g] Values calculated for OSWER (1996)

[h] These numbers are FAVs and FCVs calculated by EPA for use in the derivation of sediment quality criteria (EPA 1993b)

[i] TRV is a U.S. EPA Region 5 guideline value for classification of sediments for determining the suitability of dredged sediments for open water disposal, as cited in Hall and Suter II (1994).

[j] These values are draft Final Acute Values (FAV) and Final Chronic Values (FCV) values (EPA 1988b)

[k] TRV is not applicable to single radionuclides. Combined external and internal radiation exposure for aquatic biota from all radionuclides combined cannot exceed 1 rad/d.

References for Appendix C-3

ATSDR. 1989. *Toxicological Profile for 2-4 Dinitrotoluene and 2,6-Dinitrotoluene*, Agency for Toxic Substances and Disease Registry. US Public Health Service, Atlanta, Georgia, USA.

Clayton GD and Clayton FE. 1981. *Patty's Industrial Hygiene and Toxicology: Volume 2A: Toxicology*, Third Edition. John Wiley and Sons, New York, New York, USA.

Dilley JV, Tyson CA, Spanggord RJ, Sasmore DP, Newell GW, Dacre JC. 1982. *Short-term Oral Toxicity of 2,4,6-Trinitrotoluene in Mice, Rats, and Dogs*, J. Toxicol. Environ. Health, volume 9, p 565-585.

Ellis HV III, Hagensen JH, Hodgson JR, Minor JL, Hong CB, Ellis ER, Girvin JD, Helton DO, Herndon BL, and Lee CC. 1979. *Mammalian Toxicity of Munitions Compounds, Phase III: Effects of Lifetime Exposure, Part 1: 2,4-Dinitrotoluene*, Final Report Number 7, Contract Number DAMO 17-74-C-4073, ADA077692. . Midwest Research Institute, Kansas City, Missouri, USA.

EPA. 1996. *Ecotox Thresholds, ECO Update 3(2), EPA 540/F-95/038, Office of Solid Waste and Emergency Response*. US Environmental Protection Agency, Washington, D.C., USA.

Jones DS, Suter II GW, and Hull RN. 1997. *Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Sediment-Associated Biota: 1997 Revision*, ES/ER/TM-95/R4, November 1997. Lockheed Martin Energy Systems, Inc., Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA.

IRIS. 1996. *Integrated Risk Information System (IRIS), On-line Database of Toxicity Measures*. Office of Research and Development, Environmental Criteria and Assessment Office, Cincinnati, Ohio, USA.

Long ER and Morgan LG. 1991. *The Potential for Biological Effects of Sediment-Sorbed Contaminants Tested in the National Status and Trends Program*. National Oceanic and Atmospheric Administration Technical Memorandum NOS OMA 52, Seattle, Washington, USA.

Long ER, Macdonald DD, Smith SL, and Calder FD.1995. *Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments*, Environmental Management, volume 19, number 1, p 81-97.

Persuad, D, Jaagumagi R, and Hayton A. 1993. *Guideline for the Protection and Management of Aquatic Sediment Quality in Ontario*, Log 92-2309-067, PIBS 1962, August 1993. Ontario Ministry of the Environment, Water Resources Branch, Toronto, Ontario, Canada.

Quast JF, Humiston CG, Kalnins RY, and others. 1979. *Results of a toxicity study of monomeric styrene administered to beagle dogs by oral intubation for 19 months*, Final Report. Toxicology Research Laboratory, Health and Environmental Sciences. DOW Chemical Co., Midland, Michigan, USA.

Sample BE, Opresko DM, and Suter II GW. 1996. *Toxicological Benchmarks for National Laboratory*. Oak Ridge, Tennessee, USA.

Suter, GW II and Tsao CL. 1996. *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision*, ES/ER/TM-96/R2, 1996. Lockheed Martin Energy Systems, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA.

Talmage, SS and others. (in press), "Nitroaromatic Munition Compounds: Environmental Effects and Screening Values", *Reviews of Environmental Contamination and Toxicology*.

Will ME and Suter II GW. 1995a. *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants: 1995 Revision*, ES/ER/TM-85/R1, 1995. Lockheed Martin Energy Systems, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA.

Will ME and Suter II GW. 1995b. *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process*, ES/ER/TM-126, 1995. Martin Marietta Energy Systems, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA.

Appendix C-4

Site-Specific Parameters for the RPP-WTP Risk Assessment

Table C4-1 Site-Specific Parameters for the RPP-WTP Risk Assessment

Parameter (independent variables)	Description	Value	Units	Note
	Terrestrial			
A	Area or Stream length	NA	ha, km	Assume larger than all home ranges and foraging distances
BD	Soil Bulk Density	1.5	g/cm^3	EPA (1998a)
ER	Soil enrichment ratio	3	none	ATG (1998)
Ev	Average annual evapotranspiration	NA	cm/yr	Not needed if ks = ksg + kdecay, i.e., no erosion, runoff, etc.
Irr	Average annual irrigation	NA	cm/yr	Appears as I (Appendix B-2); not needed if no erosion, runoff, etc.
ks	Soil-loss constant due to all processes (ksg, kdecay, kse, ksr, ksl, k	NA	yr^{-1}	ks = ksg + kdecay, if no runoff, erosion, etc.
kse	Soil-loss constant due to erosion (Xe, SD, ER, Kd, BD, Zs, θsw)	0	yr^{-1}	Sect. 6.2
ksl	Soil-loss constant due to leaching (P, Irr, RO, Ev, Kd, BD, Zs, θsv	0	yr^{-1}	Sect. 6.2
ksr	Soil-loss constant due to surface runoff (RO, Kd, BD, Zs, θsw)	0	yr^{-1}	Sect. 6.2
ksv	Soil-loss constant due to volatilization	0	yr^{-1}	EPA (1998a)
P	Average annual precipitation	NA	cm/yr	Not needed if ks = ksg + kdecay, i.e., no erosion, runoff, etc.
RO	Average annual surface runoff from pervious areas	NA	cm/yr	Not needed if ks = ksg + kdecay, i.e., no erosion, runoff, etc.
C	USLE cover management factor	0.1	unitless	ATG (1998)
LS	USLE length-slope factor	1.5	none	ATG (1998)
K	USLE erodibility factor	0.36	ton/acre	ATG (1998)
PF	USLE supporting practice factor	1	unitless	ATG (1998)
RF	USLE rainfall (erosivity) factor	NA	yr^{-1}	Not needed if no erosion contribution to TSS
Xe	Unit soil loss (RF, K, LS, C, PF)	0	kg/m^2yr	Not needed if no erosion
θsw	Soil volumetric water content	0.2	ml/cm^3	EPA (1998a)

Table C4-1 Site-Specific Parameters for the RPP-WTP Risk Assessment

Parameter (independent variables)	Description	Value	Units	Note
Z_s	Soil mixing zone depth	1	cm	EPA (1998a), untilled
	Aquatic			
A_I	Impervious watershed surface area	0	m^2	Assuming stationary model
A_L	Total watershed surface area	NA	m^2	Not needed if no erosion
A_W	Water body surface area	NA	m^2	May not be needed if deposition flux is per unit meter square area
a	Sediment Delivery Equation intercept, empirical	NA	none	Not needed if no erosion
b	Sediment Delivery Equation slope, empirical	0.125	none	ATG (1998)
d_{bs}	Depth of upper sediment layer	0.03	m	ATG (1998)
d_{wc}	Depth of water column	tbd	m	$d_{wc} = d_z - d_{bs}$
d_z	Total water body depth	tbd	m	
f_{bs}	Benthic sediment fract. of total water body COPC (f_{wc})	nd	none	$f_{bs} = (1-f_{wc})$
f_{wc}	Water col. fract. of total water body COPC (Kd_{sw}, TSS, d_{wc}, d_z, θ_b	tbd	none	
FOC	Fraction of organic carbon in soil or sediment	0.04	none	ATG (1998); also appears as OCsed
kb	Benthic burial rate constant	nd	yr^{-1}	No equation given
kv	Water body loss constant due to volatilization (Kv, d_z, Kd_{sw}, TSS)	nd	yr^{-1}	
kwt	Total water body COPC dissipation rate constant (f_{wc}, kv, f_{bs}, kb)	nd	yr^{-1}	
K_G	Gas phase transfer coefficent (C_d, W, k, λ_z, μ_a, ρ_a, D_a)	nd	m/yr	
K_L	Liguid phase transfer coefficent (D_w, u, d_z) or (C_d, W, ρ_a, ρ_w, k, λ_z	nd	m/yr	
Kv	Overall COPC transfer rate coefficient (K_L, K_G, H, R)	nd	m/yr	
L_{dep}	Load from wet and dry deposition (Q, Fv, Dywwv, Dytwp, A_w)	nd	g/yr	Equation on in Sect. 6.4
L_{dif}	Load to water body by diffusion (Kv, Q, Fv, Cywv, A_w, H, R, T_{wk})	nd	g/yr	Equation on in Sect. 6.4
L_{ri}	Load from runoff from impervious surfaces (Q, Fv, Dywwv, Dytw	0	g/yr	Sect. 6.4
L_{rp}	Load from runoff from pervious surfaces (RO, A_L, A_I, Cs, BD, Kd	0	g/yr	Sect. 6.4
L_e	Load from soil erosion (Xe, A_L, A_I, SD, ER, Cs, BD, Kd, θsw)	0	g/yr	Sect. 6.4
L_{trans}	Load from within-body transformations	0	g/yr	(EPA 1998a)

Table C4-1 Site-Specific Parameters for the RPP-WTP Risk Assessment

Parameter (independent variables)	Description	Value	Units	Note
L_T	Total COPC load to water body (L_{dep}, L_{dif}, L_{ri}, L_{rp}, L_e, L_{trans})	nd	g/yr	$L_T = L_{dep} + L_{dif}$, if no runoff and erosion
SD	Sediment delivery ratio for watershed (a, A_L, b)	0	none	Assuming no erosion; ATG (1998) has values otherwise
θ_{bs}	Bed sediment porosity	0.6	L/L	ATG (1998)
TSS	Total suspended sediment (A_L, A_I, Vf_x, Dss, A_W, SD, Xe)	10	mg/L	ATG (1998)
T_{wk}	Water body temperature	tbd	°K	
u	Current velocity	tbd	m/s	
Vf_x	Average volumetric flow rate through water body	tbd	m^3/yr	
	Air			
μ_a	Viscosity of air at given temp.	tbd	g/cm s	
ρ_a	Density of air	tbd	g/cm^3	
W	Average annual wind speed	tbd	m/s	

ATG (1998) *Mixed Waste Facility RCRA/TSCA Permit Application, Attachment 4 - Risk Assessment Work Plan*, ATG, Inc., Richland, WA, July 1998.
EPA (1998a) *Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities*. US EPA, Washington, DC
NA = not applicable
nd = no data
tbd = to be determined
USLE = Universal Soil Loss Equation