9-2800

TABLE 3-3

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF
DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. B-7 (0-6)*		B-11 (0-6)*		B-17 (0-6)*		B-25 (0-6)*	
Furans		Analyzed Total[c]	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence
TCDFs (total)[b]	0	nd	-	0.047	0	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	3.7	0	3.88	0	nd	-	8.8	0
1,2,3,7,8-PeCDF	0.05	nd	-	0.42	0.021	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	0.3	0.15	nd	-	nd	-
HxCDFs (total)[b]	0	128.7	0	42.36	0	70	0	257.7	0
1,2,3,4,7,8-HxCDF	0.1	6.7	0.67	3.2	0.32	nd	-	15	1.5
1,2,3,6,7,8-HxCDF	0.1	nd	-	0.88	0.088	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	0.36	0.036	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	4.6	0.46	1.2	0.12	nd	-	7.3	0.73
HpCDFs (total)[b]	0	633	0	166.9	0	408	0	1064	0
1,2,3,4,6,7,8-HpCDF	0.01	130	1.3	38	0.38	80	0.8	210	2.1
1,2,3,4,7,8,9-HpCDF	0.01	17	0.17	5.1	0.051	12	0.12	26	0.26
OCDF	0.001	1200	1.2	390	0.39	700	0.7	1600	1.6
Subtotal			3.8		1.556		1.62		6.19

Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	0.03	0	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	0.22	0.11	nd	-	nd	-
HxCDDs (total)[b]	0	38	0	8.52	0	26.4	0	51.3	0
1,2,3,4,7,8-HxCDD	0.1	6	0.6	0.98	0.098	nd	-	7.7	0.77
1,2,3,6,7,8-HxCDD	0.1	26	2.6	6.5	0.65	16	1.6	37	3.7
1,2,3,7,8,9-HxCDD	0.1	10	1	2	0.2	3.6	0.36	14	1.4
HpCDD (total) [b]	0	500	0	140	0	370	0	700	0
1,2,3,4,6,7,8-HpCDD	0.01	1200	12	330	3.3	730	7.3	1400	14
OCDD	0.001	7800	7.8	2000	2	4300	4.3	8100	8.1
Subtotal			24		6.358		13.56		27.97
		PCP	ND		670		1000		3900
Total			27.8		7.914		15.18		34.16
		CDNA	ND		ND		ND		ND

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

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TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. B-28 (0-6)"		B-33 (0-10)"		R2C2 (1-9)"		R2C3 (1-2.5)"	
Furans		Analyzed Total[c]	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence
TCDFs (total)[b]	0	nd	-	nd	-	0.69	0	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	1.1	0	nd	-	8.6	0	5.6	0
1,2,3,7,8-PeCDF	0.05	nd	-	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	49	0	110	0	278	0	202	0
1,2,3,4,7,8-HxCDF	0.1	2.5	0.25	nd	-	12	1.2	18	1.8
1,2,3,6,7,8-HxCDF	0.1	0.73	0.073	nd	-	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	1.8	0.18	nd	-	nd	-	nd	-
HpCDFs (total)[b]	0	419	0	477	0	1070	0	1294	0
1,2,3,4,6,7,8-HpCDF	0.01	86	0.86	110	1.1	200	2	260	2.6
1,2,3,4,7,8,9-HpCDF	0.01	15	0.15	13	0.13	30	0.3	46	0.46
OCDF	0.001	3200	3.2	920	0.92	1700	1.7	7200	7.2
Subtotal			4.713		2.15		5.2		12.06
Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	0.01	0	nd	-	11.3	0	1.3	0
1,2,3,7,8,-PeCDD	0.5	0.52	0.26	nd	-	2.7	1.35	3.7	1.85
HxCDDs (total)[b]	0	17	0	61	0	167	0	89	0
1,2,3,4,7,8-HxCDD	0.1	2.5	0.25	nd	-	12	1.2	22	2.2
1,2,3,6,7,8-HxCDD	0.1	14	1.4	19	1.9	44	4.4	67	6.7
1,2,3,7,8,9-HxCDD	0.1	4.6	0.46	nd	-	17	1.7	42	4.2
HpCDD (total) [b]	0	230	0	430	0	1500	0	1600	0
1,2,3,4,6,7,8-HpCDD	0.01	770	7.7	970	9.7	1900	19	3200	32
OCDD	0.001	5600	5.6	5700	5.7	20000	20	23000	23
Subtotal		PCP	15.67 1400		17.3 100		47.65 420		69.95 5200
Total			20.383		19.45		52.85		82.01
		PNAc	ND		ND		ND		8.5

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF
DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. R2C4 (0-1.5)"		R3C3 (0-6)"		Y2C3 (0-6)"		T2C5 (0-6)"	
Furans		Analyzed Total[c]	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence
TCDFs (total)[b]	0	0.29	0	nd	-	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	2.2	0	nd	-	1.1	0	nd	-
1,2,3,7,8-PeCDF	0.05	nd	-	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	101.9	0	340	0	52.38	0	105.3	0
1,2,3,4,7,8-HxCDF	0.1	8.1	0.81	nd	-	2.7	0.27	4.7	0.47
1,2,3,6,7,8-HxCDF	0.1	nd	-	nd	-	0.56	0.056	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	0.36	0.036	nd	-
1,2,3,7,8,9-HxCDF	0.1	nd	-	nd	-	1.8	0.18	nd	-
HpCDFs (total)[b]	0	569	0	2225	0	386	0	487.5	0
1,2,3,4,6,7,8-HpCDF	0.01	120	1.2	420	4.2	93	0.93	93	0.93
1,2,3,4,7,8,9-HpCDF	0.01	21	0.21	55	0.55	11	0.11	9.5	0.095
OCDF	0.001	2300	2.3	5100	5.1	2700	2.7	850	0.85
Subtotal			4.52		9.85		4.282		2.345
Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	4.3	0	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	28.7	0	14	0	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	2.3	1.15	nd	-	nd	-	nd	-
HxCDDs (total)[b]	0	67	0	293	0	19.1	0	20	0
1,2,3,4,7,8-HxCDD	0.1	10	1	24	2.4	2.5	0.25	4.5	0.45
1,2,3,6,7,8-HxCDD	0.1	29	2.9	90	9	12	1.2	16	1.6
1,2,3,7,8,9-HxCDD	0.1	14	1.4	33	3.3	4.4	0.44	6.5	0.65
HpCDD (total) [b]	0	800	0	3000	0	300	0	320	0
1,2,3,4,6,7,8-HpCDD	0.01	1300	13	5000	50	900	9	660	6.6
OCDD	0.001	9000	9	46000	46	5100	5.1	4000	4
Subtotal		PND	28.45		110.7		15.99		13.3
			3100		5500		86		350
Total			32.97		120.55		20.272		15.645
		PND	450		ND		ND		ND

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. T3C3 (1.1-2.1)"		AP-1 (0-3)"		B-25 (0-6)"		B-11 (0-6)"	
Furans		Analyzed Total[c]	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence
TCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	nd	-	nd	-	9.4	0	0.92	0
1,2,3,7,8-PeCDF	0.05	nd	-	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	14.8	0	92	0	247.3	0	14	0
1,2,3,4,7,8-HxCDF	0.1	1.2	0.12	5.4	0.54	2.7	0.27	nd	-
1,2,3,6,7,8-HxCDF	0.1	nd	-	1.6	0.16	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	nd	-	nd	-	10	1	nd	-
HpCDFs (total)[b]	0	68.9	0	599	0	1208	0	47.6	0
1,2,3,4,6,7,8-HpCDF	0.01	14	0.14	160	1.6	250	2.5	11	0.11
1,2,3,4,7,8,9-HpCDF	0.01	2.1	0.021	21	0.21	42	0.42	1.4	0.014
OCDF	0.001	150	0.15	5900	5.9	2400	2.4	110	0.11
Subtotal			0.431		8.41		6.59		0.234
Dioxins		Analyzed Total[c]	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	0.7	0	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	2.1	1.05	nd	-	nd	-
HxCDDs (total)[b]	0	2.53	0	46.2	0	108.9	0	4.8	0
1,2,3,4,7,8-HxCDD	0.1	nd	-	7.8	0.78	nd	-	nd	-
1,2,3,6,7,8-HxCDD	0.1	2.6	0.26	31	3.1	16	1.6	nd	-
1,2,3,7,8,9-HxCDD	0.1	0.47	0.047	13	1.3	5.1	0.51	nd	-
HpCDD (total) [b]	0	50	0	500	0	900	0	40	0
1,2,3,4,6,7,8-HpCDD	0.01	140	1.4	1600	16	2300	23	100	1
OCDD	0.001	820	0.82	7100	7.1	13000	13	670	0.67
Subtotal			2.527		29.33		38.11		1.67
		PCP	520		750		3900		670
Total			2.958		37.74		44.7		1.904
		PNAs	1.9		ND		ND		ND

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. B-26 (3-4)'		B-1 (4-5)'		B-10 (4-5)'		B-27 (7-8)'	
Furans		Analyzed Total[c]	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence
TCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8-PeCDF	0.05	nd	-	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	nd	-	4	0	3.3	0	3.3	0
1,2,3,4,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
HpCDFs (total)[b]	0	0.6	0	8.07	0	17.56	0	17.43	0
1,2,3,4,6,7,8-HpCDF	0.01	0.14	0.0014	2.4	0.024	4.1	0.041	3.3	0.033
1,2,3,4,7,8,9-HpCDF	0.01	nd	-	0.53	0.0053	0.34	0.0034	0.27	0.0027
OCDF	0.001	1.7	0.0017	10	0.01	52	0.052	48	0.048
Subtotal			0.0031		0.0393		0.0964		0.0837
Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	nd	-	nd	-	nd	-
HxCDDs (total)[b]	0	nd	-	0.4	0	3.3	0	0.54	0
1,2,3,4,7,8-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,6,7,8-HxCDD	0.1	nd	-	nd	-	nd	-	0.56	0.056
1,2,3,7,8,9-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
HpCDD (total) [b]	0	0.5	0	4.5	0	23	0	9	0
1,2,3,4,6,7,8-HpCDD	0.01	1.4	0.014	8.5	0.085	45	0.45	20	0.2
OCDD	0.001	11	0.011	78	0.078	33	0.033	160	0.16
Subtotal			0.025		0.163		0.483		0.416
		DCP	330		1200		360		2800
Total			0.0281		0.2023		0.5794		0.4997
		INAK	ND		.092		ND		ND

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF
DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. WB-1 (7-8)' Analyzed Total[c]	WB-1 (7-8)' 2378-TCDF Equivalence	B-34 (2-3)' Analyzed Total	B-34 (2-3)' 2378-TCDF Equivalence	AP-7 (4-5)' Analyzed Total	AP-7 (4-5)' 2378-TCDF Equivalence	T1C2 (24-25)' Analyzed Total	T1C2 (24-25)' 2378-TCDF Equivalence
Furans									
TCDFs (total)[b]	0	nd	-	0.093	0	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	nd	-	2.64	0	nd	-	nd	-
1,2,3,7,8-PeCDF	0.05	nd	-	0.36	0.018	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	nd	-	56.5	0	11	0	7.5	0
1,2,3,4,7,8-HxCDF	0.1	nd	-	5.5	0.55	nd	-	0.9	0.09
1,2,3,6,7,8-HxCDF	0.1	nd	-	1.3	0.13	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	nd	-	3.7	0.37	nd	-	nd	-
HpCDFs (total)[b]	0	0.57	0	238.1	0	12.5	0	51.3	0
1,2,3,4,6,7,8-HpCDF	0.01	0.1	0.001	63	0.63	3.6	0.036	11	0.11
1,2,3,4,7,8,9-HpCDF	0.01	nd	-	8.9	0.089	0.9	0.009	1.7	0.017
OCDF	0.001	2.5	0.0025	1500	1.5	16	0.016	140	0.14
Subtotal			0.0035		3.287		0.061		0.357
Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	0.86	0	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	nd	-	nd	-	nd	-
HxCDDs (total)[b]	0	nd	-	17.5	0	0.85	0	1.28	0
1,2,3,4,7,8-HxCDD	0.1	nd	-	3.9	0.39	nd	-	nd	-
1,2,3,6,7,8-HxCDD	0.1	nd	-	13	1.3	nd	-	2.9	0.29
1,2,3,7,8,9-HxCDD	0.1	nd	-	6.6	0.66	nd	-	0.22	0.022
HpCDD (total) [b]	0	0.9	0	140	0	4.1	0	40	0
1,2,3,4,6,7,8-HpCDD	0.01	2	0.02	410	4.1	9.9	0.099	120	1.2
OCDD	0.001	23	0.023	3400	3.4	25	0.025	1200	1.2
Subtotal			0.043		9.85		0.124		2.712
		Pep	2d		ND		ND		200
Total			0.0465		13.137		0.185		3.069
		DNR-c	ND		ND		ND		ND

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. T1C3 (19-20)'		T3C4 (24-25)'		T3C5 (24-25)'		R1C2 (19-20)'	
Furans		Analyzed Total[c]	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence	Analyzed Total	2378-TCDF Equivalence
TCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	1.69	0	nd	-	nd	-	nd	-
1,2,3,7,8-PeCDF	0.05	0.51	0.0255	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	26.39	0	nd	-	1.3	0	nd	-
1,2,3,4,7,8-HxCDF	0.1	3.2	0.32	nd	-	nd	-	nd	-
1,2,3,6,7,8-HxCDF	0.1	0.64	0.064	nd	-	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	0.77	0.077	nd	-	nd	-	nd	-
HpCDFs (total)[b]	0	41.6	0	0	0	3.88	0	0.095	0
1,2,3,4,6,7,8-HpCDF	0.01	12	0.12	0.19	0.0019	0.91	0.0091	0.025	0.00025
1,2,3,4,7,8,9-HpCDF	0.01	2.4	0.024	0.87	0.0087	0.11	0.0011	nd	-
OCDF	0.001	56	0.056	2.8	0.0028	9.5	0.0095	0.34	0.00034
Subtotal			0.6865		0.0134		0.0197		0.00059
Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	nd	-	nd	-	nd	-
HxCDDs (total)[b]	0	1.3	0	nd	-	0.29	0	nd	-
1,2,3,4,7,8-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,6,7,8-HxCDD	0.1	1.6	0.16	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
HpCDD (total) [b]	0	12	0	0.6	0	2.6	0	0.12	0
1,2,3,4,6,7,8-HpCDD	0.01	26	0.26	1.8	0.018	5.4	0.054	0.24	0.0024
OCDD	0.001	180	0.18	19	0.019	48	0.048	2.7	0.0027
Subtotal			0.6		0.037		0.102		0.0051
		TCP	540		680		1200		36
Total			1.2865		0.0504		0.1217		0.00569
		HNAC	ND		45		ND		ND

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF
DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. R1C3 (14-15)' Analyzed Total[c]	R1C3 (14-15)' 2378-TCDF Equivalence	R2C1 (19-20)' Analyzed Total	R2C1 (19-20)' 2378-TCDF Equivalence	R3C2 (14-15)' Analyzed Total	R3C2 (14-15)' 2378-TCDF Equivalence	SED-12 Analyzed Total	SED-12 2378-TCDF Equivalence
Furans									
TCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	nd	-	nd	-	0.36	0	nd	-
1,2,3,7,8-PeCDF	0.05	nd	-	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	0.88	0	nd	-	17.44	0	9.8	0
1,2,3,4,7,8-HxCDF	0.1	nd	-	nd	-	2.3	0.23	nd	-
1,2,3,6,7,8-HxCDF	0.1	nd	-	nd	-	0.26	0.026	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	nd	-	nd		nd	-	nd	-
HpCDFs (total)[b]	0	3.81	0	0.45	0	87.2	0	37.4	0
1,2,3,4,6,7,8-HpCDF	0.01	0.87	0.0087	0.11	0.001	20	0.2	7.5	0.075
1,2,3,4,7,8,9-HpCDF	0.01	0.12	0.0012	nd	-	2.8	0.028	1.1	0.011
OCDF	0.001	14	0.014	1	0.001	290	0.29	89	0.089
Subtotal			0.0239		0.0021		0.774		0.175

Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	nd	-	nd	-	nd	-
HxCDDs (total)[b]	0	0.73	0	nd	-	5.8	0	3	0
1,2,3,4,7,8-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,6,7,8-HxCDD	0.1	nd	-	nd	-	3.6	0.36	nd	-
1,2,3,7,8,9-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
HpCDD (total) [b]	0	3.8	0	0.46	0	70	0	28	0
1,2,3,4,6,7,8-HpCDD	0.01	8.2	0.082	0.84	0.0084	130	1.3	62	0.62
OCDD	0.001	97	0.097	7.2	0.0072	1000	1	460	0.46
Subtotal		PCP	0.179 21		0.0156 20		2.66 1100		1.08
Total		PNA	0.2029 ND		0.0177 ND		3.434 ND		1.255

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).

TABLE 3-3 (Cont'd)

CALCULATIONS OF EQUIVALENT CONCENTRATIONS OF
DIBENZODIOXINS/DIBENZOFURANS

Isomer	Toxicity Equivalence Factor(TEF)[a]	Sample No. SED-14 Analyzed Total[c]	SED-14 2378-TCDF Equivalence	SED-19 Analyzed Total	SED-19 2378-TCDF Equivalence	B-11D (0-6)" Analyzed Total	B-11D (0-6)" 2378-TCDF Equivalence	B-25D (0-6)" Analyzed Total	B-25D (0-6)" 2378-TCDF Equivalence[d]
Furans									
TCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDF	0.1	nd	-	nd	-	nd	-	nd	-
PeCDFs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8-PeCDF	0.05	nd	-	nd	-	nd	-	nd	-
2,3,4,7,8-PeCDF	0.5	nd	-	nd	-	nd	-	nd	-
HxCDFs (total)[b]	0	51	0	110	0	nd	-	0.58	0.0058
1,2,3,4,7,8-HxCDF	0.1	nd	-	10	1	nd	-	nd	-
1,2,3,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
2,3,4,6,7,8-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,9-HxCDF	0.1	nd	-	nd	-	nd	-	nd	-
HpCDFs (total)[b]	0	41I	0	505	0	nd	-	3.2	0.0032
1,2,3,4,6,7,8-HpCDF	0.01	76	0.76	99	0.99	nd	-	nd	-
1,2,3,4,7,8,9-HpCDF	0.01	11	0.11	16	0.16	nd	-	nd	-
OCDF	0.001	1000	1	990	0.99	nd	-	6.6	0.0066
Subtotal			1.87		3.14		0		0.0156
Dioxins		Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence	Analyzed Total	2378-TCDD Equivalence[d]
TCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
2,3,7,8-TCDD	1	nd	-	nd	-	nd	-	nd	-
PeCDDs (total)[b]	0	nd	-	nd	-	nd	-	nd	-
1,2,3,7,8,-PeCDD	0.5	nd	-	nd	-	nd	-	nd	-
HxCDDs (total)[b]	0	41	0	22	0	nd	-	0.26	0.00104
1,2,3,4,7,8-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
1,2,3,6,7,8-HxCDD	0.1	nd	-	18	1.8	nd	-	nd	-
1,2,3,7,8,9-HxCDD	0.1	nd	-	nd	-	nd	-	nd	-
HpCDD (total) [b]	0	400	0	300	0	nd	-	9.3	0.0093
1,2,3,4,6,7,8-HpCDD	0.01	1000	10	700	7	nd	-	nd	-
OCDD	0.001	75000	75	5700	5.7	0.71	0.00071	34	0.034
Subtotal			85		14.5		0.00071		0.04434
Total			86.87		17.64		0.00071		0.05994

NOTES:

[a] Toxicity Equivalence Factors are taken from "Interim Procedures for Estimating Risk Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs), US EPA/625/3-87/012, March 1987.

[b] Total number does not include the detected individual isomers. The equivalents of individuals isomers are calculated separately.

[c] All concentration values are given in ng/g (ppb).