

Test report

61243-011-10G8014

Client: Environmental Protection Agency (EPA)
McCumiskey House
Richview
Clonskeagh Road
Dublin 14
Ireland

Order dated: July 28, 2010

Sample: Cow's milk samples, details see table

Sample-No.	GfA sample No.	Client's sample characterization
A1	10G8014.1	Cow milk
A2	10G8014.2	Cow milk
A3	10G8014.3	Cow milk
A4	10G8014.4	Cow milk
A5	10G8014.5	Cow milk
A6	10G8014.6	Cow milk
A7	10G8014.7	Cow milk
A8	10G8014.8	Cow milk
A9	10G8014.9	Cow milk
A10	10G8014.10	Cow milk
A11	10G8014.11	Cow milk
A12	10G8014.12	Cow milk
A13	10G8014.13	Cow milk
A14	10G8014.14	Cow milk
A15	10G8014.15	Cow milk
A16	10G8014.16	Cow milk
A18	10G8014.17	Cow milk
A19	10G8014.18	Cow milk
A20	10G8014.19	Cow milk
A21	10G8014.20	Cow milk
A22	10G8014.21	Cow milk
A23	10G8014.22	Cow milk
A24	10G8014.23	Cow milk
A25	10G8014.24	Cow milk

Sample-No.	GfA sample No.	Client's sample characterization
B1	10G8014.25	Cow milk
B2	10G8014.26	Cow milk
B3	10G8014.27	Cow milk
B4	10G8014.28	Cow milk
B5	10G8014.29	Cow milk
B6	10G8014.30	Cow milk
B7	10G8014.31	Cow milk
B8	10G8014.32	Cow milk
B9	10G8014.33	Cow milk
B13	10G8014.34	Cow milk
B14	10G8014.35	Cow milk
B15	10G8014.36	Cow milk
B17	10G8014.37	Cow milk
B18	10G8014.38	Cow milk

Testing: Analysis for polychlorinated Dibenzofurans and Dibenzodioxins (PCDF/Ds) and for polychlorinated Biphenyls (PCBs).

Sampling: The samples were sent to Eurofins GfA GmbH by the client.

Sample entry: July 30, 2010

Test method: **Sample preparation**
Freeze drying; Homogenisation; Soxhlet extraction of a representative sample amount by means of Toluene. Addition of sixteen $^{13}\text{C}_{12}$ -labelled internal Tetra- through OctaCDF/D standards and twelve $^{13}\text{C}_{12}$ -labelled internal PCB standards prior to extraction. Gravimetrical determination of the fat content after evaporation of the solvents.

PCDF/D analysis:

For the PCDF/D analysis the solution was cleaned-up by multi-step liquid/solid chromatography. Prior to the gas chromatographic analysis, further ^{13}C -labelled PCDF/D standards were added to the PCDF/D fraction for the determination of the recovery of the internal standards.

A capillary gas chromatograph (HRGC, HP 5890) equipped with a DB5 column coupled with a high resolution mass spectrometer (HRMS, VG-Auto-Spec) was used for the PCDF/D analysis. The quantitative determination of native Tetra- through OctaCDF/Ds was achieved via the corresponding $^{13}\text{C}_{12}$ -labelled internal standards (Isotope dilution method; QMA504-341; DIN EN ISO/IEC 17025:2005 accredited method).

The analytical methodology is in compliance with the requirement for the HRGC/HRMS confirmatory analysis of food for PCDD/Fs and PCBs as laid down by the EU directive 2002/69 and its amendment 2004/44 from April 2004 and 1883/2006 from December 2006.

PCB analysis:

For the PCB analysis the solution was cleaned-up by multi-step liquid/solid chromatography; addition of another ^{13}C -labelled PCB congener to the PCB fraction as recovery standard prior to the GC/MS analysis.

For analysis, a capillary gas chromatograph (HRGC, HP 5890) equipped with a HT5 column coupled with a high resolution mass spectrometer (HRMS, VG-AutoSpec) was used. The quantitative determination of native PCBs was achieved via the corresponding $^{13}\text{C}_{12}$ -labelled internal standards (Isotope dilution method; QMA504-341; DIN EN ISO/IEC 17025:2005 accredited method; however HRMS instead of LRMS).

The analytical methodology is in compliance with the requirement for the HRGC/HRMS confirmatory analysis of food for PCDD/Fs and PCBs as laid down by the EU directive 2002/69 and its amendment 2004/44 from April 2004 and 1883/2006 from December 2006.

Start of testing: July 30, 2010

End of testing: October 07, 2010

Results: The results of the analysis of the samples are shown in the Tables 01 to 40.

Remarks: no remarks

Tab. 01: Survey on the milk fat related PCDD/F and PCB-TEQ values (1998) determined in the background samples A 1 - A 25 and B 1 - B 17 of 2010 (upper bound values)

Sample	Dioxins WHO-TEQ (1998) incl. LOQ ^a	PCBs WHO-TEQ (1998) incl. LOQ ^a	Dioxins and PCBs Total WHO-TEQ (1998) incl. LOQ ^a
Unit	pg/g milk fat	pg/g milk fat	pg/g milk fat
A1	0,190	0,232	0,422
A2	0,194	0,154	0,348
A3	0,255	0,164	0,419
A4	0,238	0,206	0,444
A5	0,184	0,234	0,418
A6	0,214	0,194	0,408
A7	0,188	0,253	0,441
A8	0,190	0,102	0,292
A9	0,187	0,157	0,344
A10	0,188	0,171	0,359
A11	0,200	0,170	0,370
A12	0,195	0,101	0,296
A13	0,199	0,159	0,358
A14	0,199	0,143	0,342
A15	0,158	0,101	0,259
A16	0,185	0,150	0,335
A18	0,181	0,098	0,279
A19	0,206	0,138	0,344
A20	0,188	0,160	0,348
A21	0,186	0,111	0,297
A22	0,174	0,230	0,404
A23	0,225	0,222	0,447
A24	0,183	0,102	0,285
A25	0,237	0,157	0,394
B1	0,209	0,255	0,464
B2	0,191	0,203	0,394
B3	0,184	0,230	0,414
B4	0,183	0,471	0,654
B5	0,184	0,256	0,440
B6	0,185	0,196	0,381
B7	0,193	0,124	0,317
B8	0,356	0,537	0,893
B9	0,214	0,202	0,416
B13	0,200	0,112	0,312
B14	0,258	0,470	0,728
B15	0,187	0,131	0,318
B17	0,208	0,138	0,346
B18	0,197	0,221	0,418

[a] : TEQ value calculated by including the not detected congeners also by taking the full value of their limits of quantification (LOQ)

Tab. 02: Survey on the milk fat related PCDD/F and PCB-TEQ values (2005) determined in the background samples A 1 - A 25 and B 1 - B 17 of 2010 (upper bound values)

Sample	Dioxins WHO-TEQ (2005) incl. LOQ ^a	PCBs WHO-TEQ (2005) incl. LOQ ^a	Dioxins and PCBs Total WHO-TEQ (2005) incl. LOQ ^a
Unit	pg/g milk fat	pg/g milk fat	pg/g milk fat
A1	0,176	0,254	0,430
A2	0,179	0,186	0,365
A3	0,223	0,196	0,419
A4	0,211	0,238	0,449
A5	0,172	0,252	0,424
A6	0,193	0,242	0,435
A7	0,174	0,273	0,447
A8	0,175	0,138	0,313
A9	0,173	0,185	0,358
A10	0,175	0,197	0,372
A11	0,181	0,195	0,376
A12	0,178	0,138	0,316
A13	0,179	0,174	0,353
A14	0,180	0,178	0,358
A15	0,148	0,130	0,278
A16	0,172	0,182	0,354
A18	0,169	0,134	0,303
A19	0,186	0,172	0,358
A20	0,172	0,185	0,357
A21	0,171	0,142	0,313
A22	0,163	0,244	0,407
A23	0,199	0,254	0,453
A24	0,171	0,137	0,308
A25	0,209	0,178	0,387
B1	0,187	0,268	0,455
B2	0,176	0,226	0,402
B3	0,172	0,251	0,423
B4	0,171	0,442	0,613
B5	0,172	0,274	0,446
B6	0,173	0,213	0,386
B7	0,178	0,160	0,338
B8	0,300	0,514	0,814
B9	0,190	0,230	0,420
B13	0,182	0,151	0,333
B14	0,231	0,443	0,674
B15	0,173	0,165	0,338
B17	0,186	0,171	0,357
B18	0,181	0,246	0,427

[a] : TEQ value calculated by including the not detected congeners also by taking the full value of their limits of quantification (LOQ)

Tab. 03: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A1 10G8014.1		A2 10G8014.2	
Fat content [%]	4,4		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,07	0,003	0,08	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,005
1234789-HeptaCDF	< 0,1	< 0,004	< 0,1	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,52	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,001
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,56	< 0,02	< 0,56	< 0,02
OctaCDD	< 9,18	< 0,40	< 9,18	< 0,38
WHO-PCDD/F-TEQ excl. LOQ [a]	0,037	0,002	0,041	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,190	0,008	0,194	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,022	0,001	0,025	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,176	0,008	0,179	0,007
Recovery Rates	%		%	
13C12-2378-TetraCDF	61,8		76,1	
13C12-12378-PentaCDF	59,0		61,8	
13C12-23478-PentaCDF	72,8		76,4	
13C12-123478-HexaCDF	67,8		67,1	
13C12-123678-HexaCDF	63,3		55,5	
13C12-123789-HexaCDF	64,1		69,3	
13C12-234678-HexaCDF	70,9		72,1	
13C12-1234678-HeptaCDF	65,7		66,2	
13C12-1234789-HeptaCDF	65,0		68,3	
13C12-OctaCDF	57,7		59,2	
13C12-2378-TetraCDD	58,2		78,0	
13C12-12378-PentaCDD	63,3		62,2	
13C12-123478-HexaCDD	76,7		88,1	
13C12-123678-HexaCDD	68,6		69,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	69,4		74,6	
13C12-OctaCDD	55,4		56,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 04: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A3 10G8014.3		A4 10G8014.4	
Fat content [%]	4,0		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,17	0,007	0,14	0,006
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,004	< 0,11	< 0,004
1234789-HeptaCDF	< 0,1	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	0,06	0,002	0,05	0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,56	< 0,02	< 0,55	< 0,02
OctaCDD	< 9,13	< 0,37	< 9,07	< 0,37
WHO-PCDD/F-TEQ excl. LOQ [a]	0,139	0,006	0,122	0,005
WHO-PCDD/F-TEQ incl. LOQ [b]	0,255	0,010	0,238	0,01
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,105	0,004	0,094	0,004
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,223	0,009	0,211	0,009
Recovery Rates	%		%	
13C12-2378-TetraCDF	97,8		88,1	
13C12-12378-PentaCDF	53,0		61,8	
13C12-23478-PentaCDF	82,7		78,6	
13C12-123478-HexaCDF	57,2		57,1	
13C12-123678-HexaCDF	56,3		56,1	
13C12-123789-HexaCDF	74,3		74,1	
13C12-234678-HexaCDF	71,4		63,4	
13C12-1234678-HeptaCDF	64,2		62,5	
13C12-1234789-HeptaCDF	76,6		76,5	
13C12-OctaCDF	69,4		76,7	
13C12-2378-TetraCDD	92,7		75,9	
13C12-12378-PentaCDD	65,6		66,8	
13C12-123478-HexaCDD	71,0		68,1	
13C12-123678-HexaCDD	63,8		59,1	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	69,9		71,9	
13C12-OctaCDD	59,6		64,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 05: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A5 10G8014.5		A6 10G8014.6	
Fat content [%]	4,2		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	< 0,06	< 0,003	0,11	0,005
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,005
1234789-HeptaCDF	< 0,1	< 0,004	< 0,1	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,52	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,56	< 0,02	< 0,56	< 0,02
OctaCDD	< 9,15	< 0,39	< 9,13	< 0,39
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,054	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,184	0,008	0,214	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,032	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,172	0,007	0,193	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	101		102	
13C12-12378-PentaCDF	62,6		60,2	
13C12-23478-PentaCDF	89,1		81,5	
13C12-123478-HexaCDF	56,8		60,8	
13C12-123678-HexaCDF	57,7		56,5	
13C12-123789-HexaCDF	78,8		71,6	
13C12-234678-HexaCDF	68,7		66,3	
13C12-1234678-HeptaCDF	68,4		67,1	
13C12-1234789-HeptaCDF	84,8		78,8	
13C12-OctaCDF	97,5		85,9	
13C12-2378-TetraCDD	103		92,2	
13C12-12378-PentaCDD	83,3		70,1	
13C12-123478-HexaCDD	71,8		68,7	
13C12-123678-HexaCDD	64,0		63,3	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	78,5		73,2	
13C12-OctaCDD	80,7		73,8	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 06: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A7 10G8014.7		A8 10G8014.8	
Fat content [%]	4,3		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,07	0,003	0,08	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,004
1234789-HeptaCDF	< 0,1	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,001
123478-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,56	< 0,02	< 0,55	< 0,02
OctaCDD	< 9,13	< 0,39	< 9,06	< 0,36
WHO-PCDD/F-TEQ excl. LOQ [a]	0,036	0,002	0,039	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,188	0,008	0,190	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,022	0,0009	0,024	0,0009
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,174	0,008	0,175	0,007
Recovery Rates	%		%	
13C12-2378-TetraCDF	99,8		99,3	
13C12-12378-PentaCDF	52,6		64,5	
13C12-23478-PentaCDF	88,1		81,9	
13C12-123478-HexaCDF	53,2		60,9	
13C12-123678-HexaCDF	49,1		59,4	
13C12-123789-HexaCDF	65,6		82,6	
13C12-234678-HexaCDF	60,3		70,1	
13C12-1234678-HeptaCDF	62,9		63,4	
13C12-1234789-HeptaCDF	74,5		80,3	
13C12-OctaCDF	83,9		77,7	
13C12-2378-TetraCDD	90,9		105	
13C12-12378-PentaCDD	74,7		77,9	
13C12-123478-HexaCDD	63,0		75,0	
13C12-123678-HexaCDD	58,3		61,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	70,9		75,8	
13C12-OctaCDD	71,4		69,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 07: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A9 10G8014.9		A10 10G8014.10	
Fat content [%]	4,0		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
23478-PentaCDF	0,07	0,003	0,07	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
1234678-HeptaCDF	< 0,11	< 0,004	< 0,11	< 0,004
1234789-HeptaCDF	< 0,09	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,51	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,001	< 0,04	< 0,001
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,55	< 0,02	< 0,55	< 0,02
OctaCDD	< 9,09	< 0,37	< 9,09	< 0,34
WHO-PCDD/F-TEQ excl. LOQ [a]	0,035	0,001	0,034	0,001
WHO-PCDD/F-TEQ incl. LOQ [b]	0,187	0,008	0,188	0,007
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,021	0,0008	0,021	0,0008
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,173	0,007	0,175	0,007
Recovery Rates	%		%	
13C12-2378-TetraCDF	105		91,2	
13C12-12378-PentaCDF	65,8		50,1	
13C12-23478-PentaCDF	84,5		75,1	
13C12-123478-HexaCDF	60,5		52,7	
13C12-123678-HexaCDF	58,4		50,7	
13C12-123789-HexaCDF	83,6		70,6	
13C12-234678-HexaCDF	69,9		62,9	
13C12-1234678-HeptaCDF	64,2		55,8	
13C12-1234789-HeptaCDF	83,6		71,2	
13C12-OctaCDF	83,5		69,7	
13C12-2378-TetraCDD	106		85,3	
13C12-12378-PentaCDD	82,3		73,2	
13C12-123478-HexaCDD	70,9		65,2	
13C12-123678-HexaCDD	68,0		57,6	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	81,8		67,2	
13C12-OctaCDD	73,3		60,6	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 08: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A11 10G8014.11		A12 10G8014.12	
Fat content [%]	4,4		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,1	0,004	0,09	0,004
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,005
1234789-HeptaCDF	< 0,09	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,51	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,55	< 0,02	< 0,55	< 0,02
OctaCDD	< 9,09	< 0,40	< 9,09	< 0,38
WHO-PCDD/F-TEQ excl. LOQ [a]	0,048	0,002	0,043	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,200	0,009	0,195	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,029	0,001	0,026	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,181	0,008	0,178	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	88,4		92,6	
13C12-12378-PentaCDF	55,4		59,9	
13C12-23478-PentaCDF	77,0		81,6	
13C12-123478-HexaCDF	54,8		61,0	
13C12-123678-HexaCDF	53,9		63,3	
13C12-123789-HexaCDF	75,3		76,9	
13C12-234678-HexaCDF	66,3		70,7	
13C12-1234678-HeptaCDF	58,2		60,9	
13C12-1234789-HeptaCDF	74,5		73,9	
13C12-OctaCDF	66,0		58,2	
13C12-2378-TetraCDD	89,8		96,6	
13C12-12378-PentaCDD	80,5		68,6	
13C12-123478-HexaCDD	67,9		69,0	
13C12-123678-HexaCDD	60,5		64,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	71,4		64,7	
13C12-OctaCDD	59,0		49,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 09: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A13 10G8014.13		A14 10G8014.14	
Fat content [%]	4,2		4,4	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,003
23478-PentaCDF	0,10	0,004	0,1	0,004
123478-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
1234678-HeptaCDF	< 0,1	< 0,004	< 0,11	< 0,005
1234789-HeptaCDF	< 0,09	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,46	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,002	< 0,05	< 0,002
12378-PentaCDD	0,04	0,002	< 0,04	< 0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,50	< 0,02	< 0,55	< 0,02
OctaCDD	< 8,17	< 0,34	< 9,00	< 0,40
WHO-PCDD/F-TEQ excl. LOQ [a]	0,094	0,004	0,049	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,199	0,008	0,199	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,074	0,003	0,030	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,179	0,007	0,180	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	60,8		69,2	
13C12-12378-PentaCDF	51,5		57,2	
13C12-23478-PentaCDF	62,4		65,0	
13C12-123478-HexaCDF	53,9		57,1	
13C12-123678-HexaCDF	53,9		56,1	
13C12-123789-HexaCDF	67,2		71,7	
13C12-234678-HexaCDF	61,8		63,0	
13C12-1234678-HeptaCDF	54,0		55,7	
13C12-1234789-HeptaCDF	59,5		67,8	
13C12-OctaCDF	47,4		56,5	
13C12-2378-TetraCDD	54,2		70,9	
13C12-12378-PentaCDD	54,1		58,8	
13C12-123478-HexaCDD	67,3		67,0	
13C12-123678-HexaCDD	56,3		56,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	55,7		61,8	
13C12-OctaCDD	41,7		47,1	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 10: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A15 10G8014.15		A16 10G8014.16	
Fat content [%]	4,1		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,06	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,06	< 0,003
23478-PentaCDF	< 0,05	< 0,002	0,07	0,003
123478-HexaCDF	< 0,06	< 0,002	< 0,07	< 0,003
123678-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,003
1234678-HeptaCDF	< 0,09	< 0,004	< 0,11	< 0,004
1234789-HeptaCDF	< 0,08	< 0,003	< 0,09	< 0,004
OctaCDF	< 0,44	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,03	< 0,001	< 0,04	< 0,001
123478-HexaCDD	< 0,06	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,06	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,06	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,48	< 0,02	< 0,55	< 0,02
OctaCDD	< 7,86	< 0,32	< 9,09	< 0,37
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,034	0,001
WHO-PCDD/F-TEQ incl. LOQ [b]	0,158	0,007	0,185	0,007
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,020	0,0008
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,148	0,006	0,172	0,007
Recovery Rates	%		%	
13C12-2378-TetraCDF	87,4		68,2	
13C12-12378-PentaCDF	57,1		68,4	
13C12-23478-PentaCDF	69,0		77,9	
13C12-123478-HexaCDF	55,9		73,0	
13C12-123678-HexaCDF	52,8		68,8	
13C12-123789-HexaCDF	72,1		63,9	
13C12-234678-HexaCDF	63,1		73,9	
13C12-1234678-HeptaCDF	52,9		69,5	
13C12-1234789-HeptaCDF	73,0		66,7	
13C12-OctaCDF	64,8		54,2	
13C12-2378-TetraCDD	81,8		65,3	
13C12-12378-PentaCDD	66,6		66,4	
13C12-123478-HexaCDD	72,9		77,2	
13C12-123678-HexaCDD	64,0		72,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	65,2		72,6	
13C12-OctaCDD	54,8		56,1	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 11: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A18 10G8014.17		A19 10G8014.18	
Fat content [%]	3,7		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,003
23478-PentaCDF	0,07	0,002	0,10	0,004
123478-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,004	< 0,11	< 0,005
1234789-HeptaCDF	< 0,09	< 0,003	< 0,09	< 0,004
OctaCDF	< 0,50	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,03	< 0,001	0,04	0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,54	< 0,02	< 0,55	< 0,02
OctaCDD	< 8,86	< 0,33	< 9,00	< 0,38
WHO-PCDD/F-TEQ excl. LOQ [a]	0,033	0,001	0,091	0,004
WHO-PCDD/F-TEQ incl. LOQ [b]	0,181	0,007	0,206	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,020	0,0007	0,070	0,003
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,169	0,006	0,186	0,008
Recovery Rates				
	%		%	
13C12-2378-TetraCDF	79,6		84,2	
13C12-12378-PentaCDF	54,0		58,4	
13C12-23478-PentaCDF	64,4		73,9	
13C12-123478-HexaCDF	53,5		60,2	
13C12-123678-HexaCDF	52,8		57,3	
13C12-123789-HexaCDF	76,9		79,1	
13C12-234678-HexaCDF	61,3		68,4	
13C12-1234678-HeptaCDF	49,6		54,5	
13C12-1234789-HeptaCDF	74,2		77,7	
13C12-OctaCDF	59,3		65,3	
13C12-2378-TetraCDD	73,0		77,3	
13C12-12378-PentaCDD	63,9		68,8	
13C12-123478-HexaCDD	70,7		74,7	
13C12-123678-HexaCDD	59,4		65,0	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	64,9		69,6	
13C12-OctaCDD	50,4		58,8	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 12: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A20 10G8014.19		A21 10G8014.20	
Fat content [%]	3,8		4,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,003
23478-PentaCDF	0,09	0,003	0,08	0,004
123478-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
1234678-HeptaCDF	< 0,1	< 0,004	< 0,11	< 0,005
1234789-HeptaCDF	< 0,09	< 0,003	< 0,09	< 0,004
OctaCDF	< 0,47	< 0,02	< 0,50	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,002	< 0,05	< 0,002
12378-PentaCDD	0,04	0,002	< 0,03	< 0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,50	< 0,02	< 0,54	< 0,02
OctaCDD	< 8,27	< 0,31	< 8,83	< 0,40
WHO-PCDD/F-TEQ excl. LOQ [a]	0,083	0,003	0,039	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,188	0,007	0,186	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,066	0,002	0,023	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,172	0,006	0,171	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	64,2		88,1	
13C12-12378-PentaCDF	42,1		55,4	
13C12-23478-PentaCDF	60,6		66,5	
13C12-123478-HexaCDF	52,0		54,4	
13C12-123678-HexaCDF	48,0		51,9	
13C12-123789-HexaCDF	68,7		74,5	
13C12-234678-HexaCDF	59,7		61,6	
13C12-1234678-HeptaCDF	50,4		48,8	
13C12-1234789-HeptaCDF	74,2		76,4	
13C12-OctaCDF	65,2		65,2	
13C12-2378-TetraCDD	60,2		80,1	
13C12-12378-PentaCDD	56,5		67,8	
13C12-123478-HexaCDD	66,4		68,4	
13C12-123678-HexaCDD	59,9		59,5	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	67,7		65,1	
13C12-OctaCDD	57,8		55,6	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 13: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A22 10G8014.21		A23 10G8014.22	
Fat content [%]	3,7		4,1	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,002
23478-PentaCDF	< 0,06	< 0,002	0,14	0,006
123478-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
1234678-HeptaCDF	< 0,10	< 0,004	< 0,10	< 0,004
1234789-HeptaCDF	< 0,09	< 0,003	< 0,09	< 0,004
OctaCDF	< 0,49	< 0,02	< 0,49	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,04	< 0,002
12378-PentaCDD	< 0,03	< 0,001	0,05	0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,53	< 0,02	< 0,52	< 0,02
OctaCDD	< 8,63	< 0,32	< 8,60	< 0,36
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,116	0,005
WHO-PCDD/F-TEQ incl. LOQ [b]	0,174	0,006	0,225	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,088	0,004
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,163	0,006	0,199	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	68,7		70,3	
13C12-12378-PentaCDF	52,2		52,3	
13C12-23478-PentaCDF	66,3		67,6	
13C12-123478-HexaCDF	54,2		55,2	
13C12-123678-HexaCDF	50,1		50,9	
13C12-123789-HexaCDF	66,9		66,9	
13C12-234678-HexaCDF	61,6		63,7	
13C12-1234678-HeptaCDF	50,3		52,2	
13C12-1234789-HeptaCDF	69,7		71,6	
13C12-OctaCDF	60,2		65,9	
13C12-2378-TetraCDD	61,8		64,2	
13C12-12378-PentaCDD	59,2		60,5	
13C12-123478-HexaCDD	67,6		69,8	
13C12-123678-HexaCDD	61,3		61,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	64,1		66,0	
13C12-OctaCDD	50,7		56,0	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 14: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A24 10G8014.23		A25 10G8014.24	
Fat content [%]	4,0		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,06	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
23478-PentaCDF	0,06	0,003	0,14	0,006
123478-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123789-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
1234678-HeptaCDF	< 0,11	< 0,004	< 0,1	< 0,004
1234789-HeptaCDF	< 0,09	< 0,004	< 0,08	< 0,004
OctaCDF	< 0,51	< 0,02	< 0,45	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,04	< 0,002
12378-PentaCDD	< 0,04	< 0,001	0,06	0,003
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,55	< 0,02	< 0,49	< 0,02
OctaCDD	< 9,04	< 0,36	< 8,03	< 0,34
WHO-PCDD/F-TEQ excl. LOQ [a]	0,032	0,001	0,135	0,006
WHO-PCDD/F-TEQ incl. LOQ [b]	0,183	0,007	0,237	0,01
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,019	0,0008	0,106	0,004
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,171	0,007	0,209	0,009
Recovery Rates	%		%	
13C12-2378-TetraCDF	86,5		68,7	
13C12-12378-PentaCDF	51,5		76,0	
13C12-23478-PentaCDF	72,0		112	
13C12-123478-HexaCDF	52,7		57,4	
13C12-123678-HexaCDF	51,2		53,7	
13C12-123789-HexaCDF	68,2		74,5	
13C12-234678-HexaCDF	63,1		69,4	
13C12-1234678-HeptaCDF	50,8		54,1	
13C12-1234789-HeptaCDF	71,4		74,4	
13C12-OctaCDF	63,1		77,4	
13C12-2378-TetraCDD	79,4		64,0	
13C12-12378-PentaCDD	66,9		62,6	
13C12-123478-HexaCDD	70,5		71,1	
13C12-123678-HexaCDD	59,7		65,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	66,7		71,6	
13C12-OctaCDD	55,6		65,1	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 15: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B1 10G8014.25		B2 10G8014.26	
Fat content [%]	4,2		4,5	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,11	0,005	0,08	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,004
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,005
1234789-HeptaCDF	< 0,1	< 0,004	< 0,1	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,52	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,001	< 0,04	< 0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,56	< 0,02	< 0,56	< 0,03
OctaCDD	< 9,15	< 0,38	< 9,16	< 0,42
WHO-PCDD/F-TEQ excl. LOQ [a]	0,056	0,002	0,038	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,209	0,009	0,191	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,034	0,001	0,023	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,187	0,008	0,176	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	72,4		74,3	
13C12-12378-PentaCDF	61,9		66,9	
13C12-23478-PentaCDF	74,1		72,1	
13C12-123478-HexaCDF	67,9		73,0	
13C12-123678-HexaCDF	62,5		69,7	
13C12-123789-HexaCDF	58,5		71,6	
13C12-234678-HexaCDF	66,5		73,4	
13C12-1234678-HeptaCDF	65,1		63,9	
13C12-1234789-HeptaCDF	62,3		71,4	
13C12-OctaCDF	55,3		57,2	
13C12-2378-TetraCDD	71,9		77,2	
13C12-12378-PentaCDD	63,5		69,1	
13C12-123478-HexaCDD	76,6		84,3	
13C12-123678-HexaCDD	68,6		64,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	67,1		66,0	
13C12-OctaCDD	52,5		52,2	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 16: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B3 10G8014.27		B4 10G8014.28	
Fat content [%]	4,3		4,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,004
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,005
1234789-HeptaCDF	< 0,1	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,51	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,55	< 0,02	< 0,55	< 0,03
OctaCDD	< 9,11	< 0,39	< 9,09	< 0,42
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	ND	ND
WHO-PCDD/F-TEQ incl. LOQ [b]	0,184	0,008	0,183	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	ND	ND
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,172	0,007	0,171	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	69,7		60,3	
13C12-12378-PentaCDF	54,2		52,7	
13C12-23478-PentaCDF	70,8		68,3	
13C12-123478-HexaCDF	63,6		75,2	
13C12-123678-HexaCDF	59,1		65,0	
13C12-123789-HexaCDF	59,3		63,9	
13C12-234678-HexaCDF	67,7		73,2	
13C12-1234678-HeptaCDF	58,8		59,3	
13C12-1234789-HeptaCDF	58,8		59,5	
13C12-OctaCDF	52,7		55,5	
13C12-2378-TetraCDD	65,2		60,6	
13C12-12378-PentaCDD	60,3		60,4	
13C12-123478-HexaCDD	77,2		75,6	
13C12-123678-HexaCDD	57,8		57,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	59,4		62,4	
13C12-OctaCDD	48,2		52,1	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 17: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B5 10G8014.29		B6 10G8014.30	
Fat content [%]	4,4		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
23478-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123789-HexaCDF	< 0,08	< 0,004	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,004
1234789-HeptaCDF	< 0,1	< 0,004	< 0,1	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,52	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,001
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,56	< 0,02	< 0,56	< 0,02
OctaCDD	< 9,13	< 0,40	< 9,16	< 0,34
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	ND	ND
WHO-PCDD/F-TEQ incl. LOQ [b]	0,184	0,008	0,185	0,007
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	ND	ND
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,172	0,008	0,173	0,006
Recovery Rates	%		%	
13C12-2378-TetraCDF	69,0		61,8	
13C12-12378-PentaCDF	57,8		57,0	
13C12-23478-PentaCDF	73,2		69,1	
13C12-123478-HexaCDF	75,3		73,7	
13C12-123678-HexaCDF	65,5		65,0	
13C12-123789-HexaCDF	67,6		65,5	
13C12-234678-HexaCDF	78,6		74,7	
13C12-1234678-HeptaCDF	62,1		61,3	
13C12-1234789-HeptaCDF	61,7		59,3	
13C12-OctaCDF	56,5		53,3	
13C12-2378-TetraCDD	67,0		61,4	
13C12-12378-PentaCDD	64,6		62,3	
13C12-123478-HexaCDD	83,1		83,2	
13C12-123678-HexaCDD	66,9		61,5	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	66,0		63,2	
13C12-OctaCDD	51,8		49,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 18: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B7 10G8014.31		B8 10G8014.32	
Fat content [%]	4,5		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
23478-PentaCDF	0,08	0,004	0,28	0,01
123478-HexaCDF	< 0,07	< 0,003	0,1	0,004
123678-HexaCDF	< 0,06	< 0,003	0,07	0,003
123789-HexaCDF	< 0,08	< 0,004	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	0,08	0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,004
1234789-HeptaCDF	< 0,1	< 0,004	< 0,1	< 0,004
OctaCDF	< 0,52	< 0,02	< 0,52	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	0,09	0,004
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,08	< 0,003	0,09	0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,56	< 0,03	< 0,56	< 0,02
OctaCDD	< 9,16	< 0,41	< 9,13	< 0,35
WHO-PCDD/F-TEQ excl. LOQ [a]	0,041	0,002	0,266	0,010
WHO-PCDD/F-TEQ incl. LOQ [b]	0,193	0,009	0,356	0,014
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,024	0,001	0,210	0,008
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,178	0,008	0,300	0,012
Recovery Rates	%		%	
13C12-2378-TetraCDF	69,2		66,2	
13C12-12378-PentaCDF	58,1		56,0	
13C12-23478-PentaCDF	74,1		72,6	
13C12-123478-HexaCDF	71,3		73,7	
13C12-123678-HexaCDF	66,1		64,9	
13C12-123789-HexaCDF	68,1		64,0	
13C12-234678-HexaCDF	78,6		76,5	
13C12-1234678-HeptaCDF	62,9		63,1	
13C12-1234789-HeptaCDF	63,1		60,6	
13C12-OctaCDF	57,0		55,8	
13C12-2378-TetraCDD	68,7		61,7	
13C12-12378-PentaCDD	64,1		62,2	
13C12-123478-HexaCDD	82,9		82,5	
13C12-123678-HexaCDD	67,4		63,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	65,6		64,9	
13C12-OctaCDD	51,6		52,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[c] : Results verified by a duplicate analysis

Tab. 19: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B9 10G8014.33		B13 10G8014.34	
Fat content [%]	4,5		5,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,004
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,12	0,006	0,09	0,005
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,004	< 0,08	< 0,004
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,005
1234789-HeptaCDF	< 0,1	< 0,004	< 0,1	< 0,005
OctaCDF	< 0,52	< 0,02	< 0,52	< 0,03
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,04	< 0,002	< 0,04	< 0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,004
123678-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,004
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,004
1234678-HeptaCDD	< 0,56	< 0,03	< 0,56	< 0,03
OctaCDD	< 9,13	< 0,41	< 9,16	< 0,45
WHO-PCDD/F-TEQ excl. LOQ [a]	0,062	0,003	0,047	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,214	0,01	0,200	0,01
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,037	0,002	0,028	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,190	0,009	0,182	0,009
Recovery Rates	%		%	
13C12-2378-TetraCDF	81,1		76,3	
13C12-12378-PentaCDF	63,0		63,9	
13C12-23478-PentaCDF	78,0		77,0	
13C12-123478-HexaCDF	74,8		77,0	
13C12-123678-HexaCDF	68,2		69,5	
13C12-123789-HexaCDF	66,7		66,7	
13C12-234678-HexaCDF	76,7		77,6	
13C12-1234678-HeptaCDF	64,1		63,6	
13C12-1234789-HeptaCDF	65,3		63,5	
13C12-OctaCDF	56,3		54,3	
13C12-2378-TetraCDD	79,5		72,6	
13C12-12378-PentaCDD	68,3		66,2	
13C12-123478-HexaCDD	80,4		80,6	
13C12-123678-HexaCDD	67,7		66,7	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	67,1		66,1	
13C12-OctaCDD	51,3		50,6	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 20: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B14 10G8014.35		B15 10G8014.36	
Fat content [%]	4,5		3,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
23478-PentaCDF	0,14	0,006	0,07	0,003
123478-HexaCDF	0,08	0,004	< 0,06	< 0,002
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123789-HexaCDF	< 0,08	< 0,004	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
1234678-HeptaCDF	< 0,11	< 0,005	< 0,11	< 0,004
1234789-HeptaCDF	< 0,1	< 0,004	< 0,09	< 0,003
OctaCDF	< 0,51	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,06	< 0,003	< 0,05	< 0,002
12378-PentaCDD	< 0,06	< 0,003	< 0,04	< 0,001
123478-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,55	< 0,02	< 0,55	< 0,02
OctaCDD	< 9,11	< 0,41	< 9,02	< 0,33
WHO-PCDD/F-TEQ excl. LOQ [a]	0,077	0,003	0,037	0,001
WHO-PCDD/F-TEQ incl. LOQ [b]	0,258	0,012	0,187	0,007
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,049	0,002	0,022	0,0008
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,231	0,010	0,173	0,006
Recovery Rates	%		%	
13C12-2378-TetraCDF	77,0		82,5	
13C12-12378-PentaCDF	68,8		63,3	
13C12-23478-PentaCDF	87,3		78,5	
13C12-123478-HexaCDF	65,0		77,6	
13C12-123678-HexaCDF	63,2		68,2	
13C12-123789-HexaCDF	58,3		68,5	
13C12-234678-HexaCDF	69,9		76,9	
13C12-1234678-HeptaCDF	72,0		61,5	
13C12-1234789-HeptaCDF	63,5		69,9	
13C12-OctaCDF	66,0		58,6	
13C12-2378-TetraCDD	65,4		77,9	
13C12-12378-PentaCDD	76,5		70,4	
13C12-123478-HexaCDD	84,6		83,7	
13C12-123678-HexaCDD	72,5		62,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	71,2		68,7	
13C12-OctaCDD	62,4		53,5	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 21: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B17 10G8014.37		B18 10G8014.38	
Fat content [%]	4,1		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,11	0,005	0,08	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
234678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
1234678-HeptaCDF	< 0,11	< 0,004	< 0,11	< 0,005
1234789-HeptaCDF	< 0,09	< 0,004	< 0,09	< 0,004
OctaCDF	< 0,51	< 0,02	< 0,51	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	0,04	0,002	< 0,04	< 0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,55	< 0,02	< 0,55	< 0,02
OctaCDD	< 9,07	< 0,37	< 9,06	< 0,39
WHO-PCDD/F-TEQ excl. LOQ [a]	0,092	0,004	0,039	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,208	0,009	0,197	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,070	0,003	0,024	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,186	0,008	0,181	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	78,7		93,3	
13C12-12378-PentaCDF	55,6		68,7	
13C12-23478-PentaCDF	74,2		94,4	
13C12-123478-HexaCDF	70,2		70,5	
13C12-123678-HexaCDF	62,2		77,2	
13C12-123789-HexaCDF	61,2		62,0	
13C12-234678-HexaCDF	72,7		87,2	
13C12-1234678-HeptaCDF	57,0		65,8	
13C12-1234789-HeptaCDF	61,7		62,8	
13C12-OctaCDF	54,6		54,4	
13C12-2378-TetraCDD	74,9		77,2	
13C12-12378-PentaCDD	62,7		72,3	
13C12-123478-HexaCDD	75,2		70,9	
13C12-123678-HexaCDD	60,1		88,4	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	63,6		64,4	
13C12-OctaCDD	49,5		47,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 22: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A1 10G8014.1		A2 10G8014.2	
Fat content [%]	4,4		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,40	< 0,10	< 2,40	< 0,1
TetraCB(#81)	< 0,48	< 0,02	< 0,48	< 0,02
PentaCB(#105)	48,4	2,12	26,8	1,11
PentaCB(#114)	3,63	0,16	2,20	0,09
PentaCB(#118)	174	7,61	113	4,69
PentaCB(#123)	3,06	0,13	2,33	0,1
PentaCB(#126)	1,74	0,08	1,09	0,05
HexaCB(#156)	14,6	0,64	8,29	0,34
HexaCB(#157)	3,12	0,14	1,88	0,08
HexaCB(#167)	4,45	0,19	2,97	0,12
HexaCB(#169)	< 2,40	< 0,10	< 2,40	< 0,1
HeptaCB(#189)	< 1,58	< 0,07	< 1,58	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,207	0,009	0,129	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,232	0,010	0,154	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,181	0,008	0,114	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,254	0,011	0,186	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	83,9		85,2	
13C12-TetraCB(#77)	79,3		73,9	
13C12-PentaCB(#123)	86,3		96,3	
13C12-PentaCB(#118)	94,3		87,2	
13C12-PentaCB(#114)	96,8		94,1	
13C12-PentaCB(#105)	87,2		87,2	
13C12-PentaCB(#126)	78,3		83,7	
13C12-HexaCB(#167)	98,6		99,4	
13C12-HexaCB(#156)	90,8		97,9	
13C12-HexaCB(#157)	89,9		98,4	
13C12-HexaCB(#169)	74,0		88,4	
13C12-HeptaCB(#189)	83,9		97,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 23: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A3 10G8014.3		A4 10G8014.4	
Fat content [%]	4,0		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,38	< 0,1	< 2,37	< 0,1
TetraCB(#81)	< 0,48	< 0,02	< 0,47	< 0,02
PentaCB(#105)	25,8	1,04	23,2	0,94
PentaCB(#114)	2,29	0,09	2,15	0,09
PentaCB(#118)	108	4,36	103	4,18
PentaCB(#123)	2,26	0,09	2,08	0,08
PentaCB(#126)	1,19	0,05	1,62	0,07
HexaCB(#156)	8,87	0,36	8,10	0,33
HexaCB(#157)	2,14	0,09	1,85	0,07
HexaCB(#167)	2,97	0,12	4,20	0,17
HexaCB(#169)	< 2,38	< 0,1	< 2,37	< 0,1
HeptaCB(#189)	< 1,57	< 0,06	< 1,56	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,139	0,006	0,181	0,007
WHO-PCB-TEQ incl. LOQ [b]	0,164	0,007	0,206	0,008
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,124	0,005	0,167	0,007
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,196	0,008	0,238	0,01
Recovery Rates	%		%	
13C12-TetraCB(#81)	81,3		88,9	
13C12-TetraCB(#77)	69,5		63,8	
13C12-PentaCB(#123)	93,5		104	
13C12-PentaCB(#118)	85,4		97,3	
13C12-PentaCB(#114)	90,7		105	
13C12-PentaCB(#105)	87,2		100	
13C12-PentaCB(#126)	79,2		92,4	
13C12-HexaCB(#167)	97,4		91,4	
13C12-HexaCB(#156)	95,0		88,1	
13C12-HexaCB(#157)	95,3		88,9	
13C12-HexaCB(#169)	83,9		70,6	
13C12-HeptaCB(#189)	92,3		95,5	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 24: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A5 10G8014.5		A6 10G8014.6	
Fat content [%]	4,2		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,39	< 0,10	< 2,38	< 0,10
TetraCB(#81)	< 0,48	< 0,02	< 0,48	< 0,02
PentaCB(#105)	54,0	2,28	39,7	1,67
PentaCB(#114)	4,61	0,19	3,89	0,16
PentaCB(#118)	209	8,84	164	6,94
PentaCB(#123)	3,75	0,16	2,67	0,11
PentaCB(#126)	1,71	0,07	1,63	0,07
HexaCB(#156)	15,0	0,63	12,4	0,53
HexaCB(#157)	3,56	0,15	3,15	0,13
HexaCB(#167)	6,55	0,28	5,35	0,23
HexaCB(#169)	< 2,39	< 0,10	< 2,38	< 0,10
HeptaCB(#189)	< 1,57	< 0,07	< 1,57	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,209	0,009	0,194	0,008
WHO-PCB-TEQ incl. LOQ [b]	0,234	0,01	0,218	0,009
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,180	0,008	0,170	0,007
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,252	0,011	0,242	0,010
Recovery Rates	%		%	
13C12-TetraCB(#81)	101		92,2	
13C12-TetraCB(#77)	65,6		62,0	
13C12-PentaCB(#123)	109		109	
13C12-PentaCB(#118)	93,1		97,9	
13C12-PentaCB(#114)	107		108	
13C12-PentaCB(#105)	105		106	
13C12-PentaCB(#126)	99,6		100	
13C12-HexaCB(#167)	94,4		90,4	
13C12-HexaCB(#156)	87,5		85,2	
13C12-HexaCB(#157)	88,1		83,8	
13C12-HexaCB(#169)	78,6		71,8	
13C12-HeptaCB(#189)	94,9		90,5	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 25: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A7 10G8014.7		A8 10G8014.8	
Fat content [%]	4,3		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,38	< 0,10	< 2,36	< 0,09
TetraCB(#81)	< 0,48	< 0,02	< 0,47	< 0,02
PentaCB(#105)	49,8	2,15	17,1	0,69
PentaCB(#114)	4,65	0,20	1,91	0,08
PentaCB(#118)	193	8,34	75,5	3,03
PentaCB(#123)	3,47	0,15	< 1,50	< 0,06
PentaCB(#126)	1,93	0,08	< 0,63	< 0,03
HexaCB(#156)	14,7	0,64	6,98	0,28
HexaCB(#157)	3,15	0,14	1,54	0,06
HexaCB(#167)	6,99	0,30	2,94	0,12
HexaCB(#169)	< 2,38	< 0,10	< 2,36	< 0,09
HeptaCB(#189)	< 1,57	< 0,07	< 1,56	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,229	0,01	0,015	0,0006
WHO-PCB-TEQ incl. LOQ [b]	0,253	0,011	0,102	0,004
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,201	0,009	0,003	0,0001
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,273	0,012	0,138	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	85,9		92,6	
13C12-TetraCB(#77)	56,5		54,8	
13C12-PentaCB(#123)	92,6		96,2	
13C12-PentaCB(#118)	86,2		88,6	
13C12-PentaCB(#114)	89,1		93,8	
13C12-PentaCB(#105)	87,5		84,9	
13C12-PentaCB(#126)	78,6		80,6	
13C12-HexaCB(#167)	89,2		90,2	
13C12-HexaCB(#156)	88,3		93,1	
13C12-HexaCB(#157)	85,9		89,9	
13C12-HexaCB(#169)	81,0		81,7	
13C12-HeptaCB(#189)	86,8		87,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 26: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A9 10G8014.9		A10 10G8014.10	
Fat content [%]	4,0		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,37	< 0,1	< 2,37	< 0,09
TetraCB(#81)	< 0,47	< 0,02	< 0,47	< 0,02
PentaCB(#105)	34,0	1,37	36,9	1,38
PentaCB(#114)	3,15	0,13	3,78	0,14
PentaCB(#118)	135	5,45	151	5,65
PentaCB(#123)	2,94	0,12	2,55	0,1
PentaCB(#126)	1,08	0,04	1,19	0,04
HexaCB(#156)	10,2	0,41	11,8	0,44
HexaCB(#157)	2,60	0,10	2,99	0,11
HexaCB(#167)	4,94	0,20	4,85	0,18
HexaCB(#169)	< 2,37	< 0,1	< 2,37	< 0,09
HeptaCB(#189)	< 1,56	< 0,06	< 1,56	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,133	0,005	0,147	0,006
WHO-PCB-TEQ incl. LOQ [b]	0,157	0,006	0,171	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,114	0,005	0,125	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,185	0,007	0,197	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	92,8		79,6	
13C12-TetraCB(#77)	55,1		53,2	
13C12-PentaCB(#123)	96,3		82,7	
13C12-PentaCB(#118)	85,2		79,3	
13C12-PentaCB(#114)	92,4		81,6	
13C12-PentaCB(#105)	91,4		78,4	
13C12-PentaCB(#126)	83,7		70,4	
13C12-HexaCB(#167)	90,2		81,5	
13C12-HexaCB(#156)	93,2		83,7	
13C12-HexaCB(#157)	91,0		81,1	
13C12-HexaCB(#169)	85,6		71,9	
13C12-HeptaCB(#189)	89,6		80,2	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 27: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A11 10G8014.11		A12 10G8014.12	
Fat content [%]	4,4		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,37	< 0,10	< 2,37	< 0,10
TetraCB(#81)	< 0,47	< 0,02	< 0,47	< 0,02
PentaCB(#105)	38,9	1,69	15,1	0,64
PentaCB(#114)	3,94	0,17	1,48	0,06
PentaCB(#118)	145	6,32	68,6	2,89
PentaCB(#123)	2,75	0,12	1,68	0,07
PentaCB(#126)	1,17	0,05	< 0,63	< 0,03
HexaCB(#156)	12,8	0,56	6,28	0,26
HexaCB(#157)	3,09	0,13	1,41	0,06
HexaCB(#167)	4,71	0,20	3,09	0,13
HexaCB(#169)	< 2,37	< 0,10	< 2,37	< 0,10
HeptaCB(#189)	< 1,56	< 0,07	< 1,56	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,146	0,006	0,013	0,0006
WHO-PCB-TEQ incl. LOQ [b]	0,170	0,007	0,101	0,004
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,123	0,005	0,003	0,0001
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,195	0,008	0,138	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	91,8		86,7	
13C12-TetraCB(#77)	50,7		59,2	
13C12-PentaCB(#123)	98,9		86,1	
13C12-PentaCB(#118)	88,9		78,9	
13C12-PentaCB(#114)	95,6		84,1	
13C12-PentaCB(#105)	88,9		77,4	
13C12-PentaCB(#126)	82,0		75,2	
13C12-HexaCB(#167)	93,1		80,8	
13C12-HexaCB(#156)	93,3		85,6	
13C12-HexaCB(#157)	92,1		82,9	
13C12-HexaCB(#169)	80,4		77,8	
13C12-HeptaCB(#189)	92,0		83,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 28: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A13 10G8014.13		A14 10G8014.14	
Fat content [%]	4,2		4,4	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,13	< 0,09	< 2,35	< 0,10
TetraCB(#81)	< 0,43	< 0,02	< 0,47	< 0,02
PentaCB(#105)	57,2	2,39	22,3	0,99
PentaCB(#114)	4,64	0,19	2,44	0,11
PentaCB(#118)	196	8,21	91,0	4,03
PentaCB(#123)	5,06	0,21	< 1,49	< 0,07
PentaCB(#126)	1,02	0,04	1,03	0,05
HexaCB(#156)	12,5	0,53	6,29	0,28
HexaCB(#157)	2,74	0,11	1,28	0,06
HexaCB(#167)	4,70	0,20	2,55	0,11
HexaCB(#169)	< 2,13	< 0,09	< 2,35	< 0,10
HeptaCB(#189)	< 1,40	< 0,06	< 1,55	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,137	0,006	0,119	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,159	0,007	0,143	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,110	0,005	0,107	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,174	0,007	0,178	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	86,9		92,9	
13C12-TetraCB(#77)	90,4		96,2	
13C12-PentaCB(#123)	94,7		84,9	
13C12-PentaCB(#118)	94,5		89,5	
13C12-PentaCB(#114)	97,3		90,8	
13C12-PentaCB(#105)	92,5		88,1	
13C12-PentaCB(#126)	97,0		84,0	
13C12-HexaCB(#167)	89,1		91,9	
13C12-HexaCB(#156)	93,6		87,6	
13C12-HexaCB(#157)	92,5		96,3	
13C12-HexaCB(#169)	88,2		82,3	
13C12-HeptaCB(#189)	96,0		91,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 29: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A15 10G8014.15		A16 10G8014.16	
Fat content [%]			4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,05	< 0,08	< 2,37	< 0,1
TetraCB(#81)	< 0,41	< 0,02	< 0,47	< 0,02
PentaCB(#105)	20,0	0,83	27,0	1,09
PentaCB(#114)	1,47	0,06	2,42	0,1
PentaCB(#118)	85,0	3,51	109	4,40
PentaCB(#123)	< 1,30	< 0,05	1,93	0,08
PentaCB(#126)	0,65	0,03	1,05	0,04
HexaCB(#156)	5,42	0,22	9,30	0,38
HexaCB(#157)	1,60	0,07	2,11	0,09
HexaCB(#167)	< 2,05	< 0,08	2,67	0,11
HexaCB(#169)	< 2,05	< 0,08	< 2,37	< 0,1
HeptaCB(#189)	< 1,35	< 0,06	< 1,56	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,080	0,003	0,126	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,101	0,004	0,150	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,068	0,003	0,110	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,130	0,005	0,182	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	82,4		85,1	
13C12-TetraCB(#77)	91,5		83,8	
13C12-PentaCB(#123)	88,4		96,2	
13C12-PentaCB(#118)	90,0		107	
13C12-PentaCB(#114)	87,4		103	
13C12-PentaCB(#105)	90,9		123	
13C12-PentaCB(#126)	81,3		112	
13C12-HexaCB(#167)	87,4		116	
13C12-HexaCB(#156)	84,6		114	
13C12-HexaCB(#157)	83,3		113	
13C12-HexaCB(#169)	76,5		94,0	
13C12-HeptaCB(#189)	87,8		102	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 30: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A18 10G8014.17		A19 10G8014.18	
Fat content [%]	3,7		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,31	< 0,09	< 2,35	< 0,1
TetraCB(#81)	< 0,46	< 0,02	< 0,47	< 0,02
PentaCB(#105)	14,3	0,53	22,9	0,97
PentaCB(#114)	1,80	0,07	2,34	0,1
PentaCB(#118)	66,6	2,45	85,9	3,64
PentaCB(#123)	1,67	0,06	1,52	0,06
PentaCB(#126)	< 0,62	< 0,02	0,97	0,04
HexaCB(#156)	< 5,97	< 0,22	8,64	0,37
HexaCB(#157)	< 1,04	< 0,04	1,73	0,07
HexaCB(#167)	< 2,31	< 0,09	< 2,35	< 0,1
HexaCB(#169)	< 2,31	< 0,09	< 2,35	< 0,1
HeptaCB(#189)	< 1,52	< 0,06	< 1,55	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,009	0,0003	0,114	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,098	0,004	0,138	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,003	0,00009	0,101	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,134	0,005	0,172	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	77,4		80,7	
13C12-TetraCB(#77)	82,4		88,6	
13C12-PentaCB(#123)	83,5		97,9	
13C12-PentaCB(#118)	86,2		95,3	
13C12-PentaCB(#114)	88,4		94,3	
13C12-PentaCB(#105)	82,8		94,9	
13C12-PentaCB(#126)	77,5		90,2	
13C12-HexaCB(#167)	82,7		89,7	
13C12-HexaCB(#156)	82,3		89,6	
13C12-HexaCB(#157)	82,0		93,1	
13C12-HexaCB(#169)	75,4		75,0	
13C12-HeptaCB(#189)	85,9		90,2	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 31: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A20 10G8014.19		A21 10G8014.20	
Fat content [%]	3,8		4,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,16	< 0,08	< 2,30	< 0,10
TetraCB(#81)	< 0,43	< 0,02	< 0,46	< 0,02
PentaCB(#105)	32,6	1,23	24,9	1,13
PentaCB(#114)	3,57	0,13	3,47	0,16
PentaCB(#118)	112	4,25	116	5,29
PentaCB(#123)	1,49	0,06	2,19	0,1
PentaCB(#126)	1,15	0,04	0,67	0,03
HexaCB(#156)	11,0	0,42	7,30	0,33
HexaCB(#157)	2,40	0,09	1,48	0,07
HexaCB(#167)	3,53	0,13	< 2,30	< 0,10
HexaCB(#169)	< 2,16	< 0,08	< 2,30	< 0,10
HeptaCB(#189)	1,67	0,06	< 1,52	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,139	0,005	0,088	0,004
WHO-PCB-TEQ incl. LOQ [b]	0,160	0,006	0,111	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,120	0,005	0,072	0,003
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,185	0,007	0,142	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	81,2		81,5	
13C12-TetraCB(#77)	79,8		84,4	
13C12-PentaCB(#123)	97,3		84,1	
13C12-PentaCB(#118)	92,1		83,0	
13C12-PentaCB(#114)	85,6		77,6	
13C12-PentaCB(#105)	82,0		79,8	
13C12-PentaCB(#126)	75,6		74,6	
13C12-HexaCB(#167)	78,8		69,8	
13C12-HexaCB(#156)	71,1		63,1	
13C12-HexaCB(#157)	76,5		75,6	
13C12-HexaCB(#169)	79,1		73,1	
13C12-HeptaCB(#189)	85,6		81,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 32: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A22 10G8014.21		A23 10G8014.22	
Fat content [%]	3,7		4,1	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,25	< 0,08	< 2,24	< 0,09
TetraCB(#81)	< 0,45	< 0,02	< 0,45	< 0,02
PentaCB(#105)	69,9	2,57	21,6	0,89
PentaCB(#114)	4,18	0,15	2,21	0,09
PentaCB(#118)	232	8,52	82,3	3,40
PentaCB(#123)	3,78	0,14	< 1,42	< 0,06
PentaCB(#126)	1,66	0,06	1,83	0,08
HexaCB(#156)	13,8	0,51	7,73	0,32
HexaCB(#157)	3,01	0,11	1,82	0,08
HexaCB(#167)	3,64	0,13	2,40	0,1
HexaCB(#169)	< 2,25	< 0,08	< 2,24	< 0,09
HeptaCB(#189)	< 1,48	< 0,05	< 1,48	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,207	0,008	0,199	0,008
WHO-PCB-TEQ incl. LOQ [b]	0,230	0,008	0,222	0,009
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,176	0,006	0,187	0,008
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,244	0,009	0,254	0,011
Recovery Rates	%		%	
13C12-TetraCB(#81)	80,8		82,9	
13C12-TetraCB(#77)	75,7		78,3	
13C12-PentaCB(#123)	92,1		90,0	
13C12-PentaCB(#118)	87,5		89,2	
13C12-PentaCB(#114)	86,6		82,7	
13C12-PentaCB(#105)	80,0		81,1	
13C12-PentaCB(#126)	73,6		83,5	
13C12-HexaCB(#167)	76,9		77,4	
13C12-HexaCB(#156)	67,6		73,1	
13C12-HexaCB(#157)	75,4		78,3	
13C12-HexaCB(#169)	76,5		74,3	
13C12-HeptaCB(#189)	87,6		85,2	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[c] : Results verified by a duplicate analysis

Tab. 33: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A24 10G8014.23		A25 10G8014.24	
Fat content [%]	4,0		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,36	< 0,09	< 2,09	< 0,09
TetraCB(#81)	< 0,47	< 0,02	< 0,42	< 0,02
PentaCB(#105)	17,6	0,70	37,8	1,59
PentaCB(#114)	1,63	0,07	3,26	0,14
PentaCB(#118)	79,9	3,19	135	5,69
PentaCB(#123)	1,99	0,08	2,84	0,12
PentaCB(#126)	< 0,63	< 0,03	1,09	0,05
HexaCB(#156)	6,87	0,27	13,0	0,55
HexaCB(#157)	1,43	0,06	3,14	0,13
HexaCB(#167)	2,90	0,12	5,55	0,23
HexaCB(#169)	< 2,36	< 0,09	< 2,09	< 0,09
HeptaCB(#189)	< 1,55	< 0,06	< 1,38	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,015	0,0006	0,136	0,006
WHO-PCB-TEQ incl. LOQ [b]	0,102	0,004	0,157	0,007
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,003	0,0001	0,115	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,137	0,005	0,178	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	92,3		84,5	
13C12-TetraCB(#77)	73,1		79,7	
13C12-PentaCB(#123)	88,7		96,0	
13C12-PentaCB(#118)	87,0		96,6	
13C12-PentaCB(#114)	91,1		88,9	
13C12-PentaCB(#105)	88,1		95,6	
13C12-PentaCB(#126)	86,3		88,6	
13C12-HexaCB(#167)	94,2		96,2	
13C12-HexaCB(#156)	93,0		94,5	
13C12-HexaCB(#157)	92,9		94,8	
13C12-HexaCB(#169)	81,4		81,9	
13C12-HeptaCB(#189)	85,5		89,7	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 34: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B1 10G8014.25		B2 10G8014.26	
Fat content [%]	4,2		4,5	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,39	< 0,1	< 2,39	< 0,11
TetraCB(#81)	< 0,48	< 0,02	< 0,48	< 0,02
PentaCB(#105)	66,2	2,77	46,1	2,09
PentaCB(#114)	4,49	0,19	3,51	0,16
PentaCB(#118)	244	10,2	174	7,89
PentaCB(#123)	4,88	0,20	2,74	0,12
PentaCB(#126)	1,86	0,08	1,47	0,07
HexaCB(#156)	17,1	0,72	13,0	0,59
HexaCB(#157)	4,78	0,20	2,98	0,14
HexaCB(#167)	8,08	0,34	6,14	0,28
HexaCB(#169)	< 2,39	< 0,1	< 2,39	< 0,11
HeptaCB(#189)	< 1,57	< 0,07	< 1,57	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,230	0,01	0,179	0,008
WHO-PCB-TEQ incl. LOQ [b]	0,255	0,011	0,203	0,009
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,196	0,008	0,154	0,007
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,268	0,011	0,226	0,010
Recovery Rates	%		%	
13C12-TetraCB(#81)	75,5		68,1	
13C12-TetraCB(#77)	67,3		47,1	
13C12-PentaCB(#123)	77,3		81,8	
13C12-PentaCB(#118)	86,9		81,0	
13C12-PentaCB(#114)	92,0		85,9	
13C12-PentaCB(#105)	83,6		79,2	
13C12-PentaCB(#126)	75,2		62,8	
13C12-HexaCB(#167)	90,0		83,6	
13C12-HexaCB(#156)	89,1		78,9	
13C12-HexaCB(#157)	82,7		81,3	
13C12-HexaCB(#169)	74,2		64,8	
13C12-HeptaCB(#189)	86,8		81,2	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 35: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B3 10G8014.27		B4 10G8014.28	
Fat content [%]	4,3		4,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,38	< 0,10	< 2,37	< 0,11
TetraCB(#81)	< 0,48	< 0,02	0,60	0,03
PentaCB(#105)	52,6	2,25	136	6,26
PentaCB(#114)	4,44	0,19	11,7	0,54
PentaCB(#118)	189	8,08	526	24,3
PentaCB(#123)	3,29	0,14	7,83	0,36
PentaCB(#126)	1,72	0,07	3,48	0,16
HexaCB(#156)	12,7	0,54	43,0	1,98
HexaCB(#157)	2,93	0,13	8,92	0,41
HexaCB(#167)	5,14	0,22	17,6	0,81
HexaCB(#169)	< 2,38	< 0,10	< 2,37	< 0,11
HeptaCB(#189)	< 1,56	< 0,07	1,86	0,09
WHO-PCB-TEQ excl. LOQ [a]	0,206	0,009	0,447	0,021
WHO-PCB-TEQ incl. LOQ [b]	0,230	0,01	0,471	0,022
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,180	0,008	0,370	0,017
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,251	0,011	0,442	0,020
Recovery Rates	%		%	
13C12-TetraCB(#81)	69,3		73,8	
13C12-TetraCB(#77)	52,6		65,3	
13C12-PentaCB(#123)	86,5		85,9	
13C12-PentaCB(#118)	84,3		84,9	
13C12-PentaCB(#114)	93,3		85,4	
13C12-PentaCB(#105)	82,3		83,9	
13C12-PentaCB(#126)	69,4		76,1	
13C12-HexaCB(#167)	87,8		86,1	
13C12-HexaCB(#156)	85,0		81,6	
13C12-HexaCB(#157)	87,4		89,2	
13C12-HexaCB(#169)	67,7		72,0	
13C12-HeptaCB(#189)	83,1		82,9	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[c] : Results verified by a duplicate analysis

Tab. 36: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B5 10G8014.29		B6 10G8014.30	
Fat content [%]	4,4		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,38	< 0,11	< 2,39	< 0,09
TetraCB(#81)	< 0,48	< 0,02	< 0,48	< 0,02
PentaCB(#105)	60,1	2,66	54,0	1,98
PentaCB(#114)	5,14	0,23	4,60	0,17
PentaCB(#118)	201	8,91	210	7,71
PentaCB(#123)	3,65	0,16	3,31	0,12
PentaCB(#126)	1,94	0,09	1,32	0,05
HexaCB(#156)	14,9	0,66	16,9	0,62
HexaCB(#157)	3,07	0,14	3,80	0,14
HexaCB(#167)	5,37	0,24	7,64	0,28
HexaCB(#169)	< 2,38	< 0,11	< 2,39	< 0,09
HeptaCB(#189)	< 1,57	< 0,07	< 1,57	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,232	0,010	0,172	0,006
WHO-PCB-TEQ incl. LOQ [b]	0,256	0,011	0,196	0,007
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,202	0,009	0,141	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,274	0,012	0,213	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	79,7		77,7	
13C12-TetraCB(#77)	60,8		60,9	
13C12-PentaCB(#123)	89,4		87,7	
13C12-PentaCB(#118)	89,8		86,3	
13C12-PentaCB(#114)	91,5		88,9	
13C12-PentaCB(#105)	88,7		85,4	
13C12-PentaCB(#126)	75,1		73,5	
13C12-HexaCB(#167)	96,8		100	
13C12-HexaCB(#156)	91,2		94,3	
13C12-HexaCB(#157)	98,8		98,8	
13C12-HexaCB(#169)	88,2		82,8	
13C12-HeptaCB(#189)	89,3		91,3	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 37: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B7 10G8014.31		B8 10G8014.32	
Fat content [%]	4,5		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,39	< 0,11	< 2,38	< 0,09
TetraCB(#81)	< 0,48	< 0,02	0,91	0,03
PentaCB(#105)	19,7	0,89	111	4,28
PentaCB(#114)	1,86	0,08	10,9	0,42
PentaCB(#118)	77,4	3,48	511	19,6
PentaCB(#123)	< 1,51	< 0,07	8,73	0,34
PentaCB(#126)	0,85	0,04	4,21	0,16
HexaCB(#156)	< 6,18	< 0,28	36,6	1,41
HexaCB(#157)	1,53	0,07	8,19	0,31
HexaCB(#167)	2,80	0,13	16,2	0,62
HexaCB(#169)	< 2,39	< 0,11	< 2,38	< 0,09
HeptaCB(#189)	< 1,57	< 0,07	2,50	0,1
WHO-PCB-TEQ excl. LOQ [a]	0,096	0,004	0,513	0,020
WHO-PCB-TEQ incl. LOQ [b]	0,124	0,006	0,537	0,021
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,088	0,004	0,443	0,017
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,160	0,007	0,514	0,020
Recovery Rates	%		%	
13C12-TetraCB(#81)	80,1		79,7	
13C12-TetraCB(#77)	68,3		66,9	
13C12-PentaCB(#123)	92,8		89,2	
13C12-PentaCB(#118)	90,9		85,4	
13C12-PentaCB(#114)	97,3		90,1	
13C12-PentaCB(#105)	91,5		87,2	
13C12-PentaCB(#126)	74,5		70,2	
13C12-HexaCB(#167)	104		94,7	
13C12-HexaCB(#156)	96,3		91,5	
13C12-HexaCB(#157)	101		93,8	
13C12-HexaCB(#169)	90,6		80,1	
13C12-HeptaCB(#189)	97,7		91,0	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[c] : Results verified by a duplicate analysis

Tab. 38: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B9 10G8014.33		B13 10G8014.34	
Fat content [%]	4,5		5,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,38	< 0,11	< 2,39	< 0,12
TetraCB(#81)	< 0,48	< 0,02	< 0,48	< 0,02
PentaCB(#105)	31,8	1,44	13,0	0,64
PentaCB(#114)	3,21	0,14	1,37	0,07
PentaCB(#118)	137	6,20	54,7	2,71
PentaCB(#123)	2,90	0,13	< 1,51	< 0,08
PentaCB(#126)	1,52	0,07	0,76	0,04
HexaCB(#156)	10,9	0,49	< 6,18	< 0,31
HexaCB(#157)	2,40	0,11	1,12	0,06
HexaCB(#167)	2,84	0,13	< 2,39	< 0,12
HexaCB(#169)	< 2,38	< 0,11	< 2,39	< 0,12
HeptaCB(#189)	< 1,57	< 0,07	< 1,57	< 0,08
WHO-PCB-TEQ excl. LOQ [a]	0,178	0,008	0,084	0,004
WHO-PCB-TEQ incl. LOQ [b]	0,202	0,009	0,112	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,158	0,007	0,078	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,230	0,010	0,151	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	86,1		89,8	
13C12-TetraCB(#77)	74,9		80,9	
13C12-PentaCB(#123)	95,4		96,7	
13C12-PentaCB(#118)	81,8		80,5	
13C12-PentaCB(#114)	92,2		93,4	
13C12-PentaCB(#105)	79,0		77,0	
13C12-PentaCB(#126)	88,6		88,4	
13C12-HexaCB(#167)	99,9		92,0	
13C12-HexaCB(#156)	99,4		90,6	
13C12-HexaCB(#157)	102		94,5	
13C12-HexaCB(#169)	82,9		82,6	
13C12-HeptaCB(#189)	99,5		92,9	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 39: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B14 10G8014.35		B15 10G8014.36	
Fat content [%]	4,5		3,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,38	< 0,11	< 2,35	< 0,09
TetraCB(#81)	< 0,48	< 0,02	< 0,47	< 0,02
PentaCB(#105)	149	6,67	21,1	0,76
PentaCB(#114)	10,9	0,48	2,07	0,07
PentaCB(#118)	466	20,8	92,5	3,35
PentaCB(#123)	7,58	0,34	< 1,49	< 0,05
PentaCB(#126)	3,50	0,16	0,90	0,03
HexaCB(#156)	46,4	2,07	7,30	0,26
HexaCB(#157)	10,6	0,47	1,57	0,06
HexaCB(#167)	11,2	0,50	2,88	0,10
HexaCB(#169)	< 2,38	< 0,11	< 2,35	< 0,09
HeptaCB(#189)	2,16	0,1	< 1,55	< 0,06
WHO-PCB-TEQ excl. LOQ [a]	0,446	0,020	0,107	0,004
WHO-PCB-TEQ incl. LOQ [b]	0,470	0,021	0,131	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,371	0,017	0,094	0,003
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,443	0,020	0,165	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	93,4		87,4	
13C12-TetraCB(#77)	84,2		75,5	
13C12-PentaCB(#123)	95,6		95,5	
13C12-PentaCB(#118)	101		87,2	
13C12-PentaCB(#114)	98,2		95,0	
13C12-PentaCB(#105)	94,8		85,7	
13C12-PentaCB(#126)	81,2		87,4	
13C12-HexaCB(#167)	101		91,7	
13C12-HexaCB(#156)	99,3		92,9	
13C12-HexaCB(#157)	100		92,7	
13C12-HexaCB(#169)	83,9		81,8	
13C12-HeptaCB(#189)	83,5		91,4	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 40: Results of the analysis of a milk sample for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B17 10G8014.37		B18 10G8014.38	
Fat content [%]	4,1		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,37	< 0,1	< 2,36	< 0,10
TetraCB(#81)	< 0,47	< 0,02	< 0,47	< 0,02
PentaCB(#105)	20,6	0,85	36,3	1,57
PentaCB(#114)	2,01	0,08	3,49	0,15
PentaCB(#118)	89,9	3,71	146	6,27
PentaCB(#123)	2,18	0,09	2,74	0,12
PentaCB(#126)	0,96	0,04	1,69	0,07
HexaCB(#156)	8,47	0,35	12,1	0,52
HexaCB(#157)	1,89	0,08	2,86	0,12
HexaCB(#167)	< 2,37	< 0,1	5,19	0,22
HexaCB(#169)	< 2,37	< 0,1	< 2,36	< 0,10
HeptaCB(#189)	< 1,56	< 0,06	< 1,56	< 0,07
WHO-PCB-TEQ excl. LOQ [a]	0,113	0,005	0,196	0,008
WHO-PCB-TEQ incl. LOQ [b]	0,138	0,006	0,221	0,01
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,10	0,004	0,175	0,008
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,171	0,007	0,246	0,011
Recovery Rates	%		%	
13C12-TetraCB(#81)	79,5		106	
13C12-TetraCB(#77)	73,5		83,6	
13C12-PentaCB(#123)	88,7		91,2	
13C12-PentaCB(#118)	80,4		97,6	
13C12-PentaCB(#114)	86,4		100	
13C12-PentaCB(#105)	82,5		95,5	
13C12-PentaCB(#126)	82,1		90,6	
13C12-HexaCB(#167)	84,4		92,4	
13C12-HexaCB(#156)	81,5		96,8	
13C12-HexaCB(#157)	87,9		101	
13C12-HexaCB(#169)	78,3		91,1	
13C12-HeptaCB(#189)	81,3		89,8	

< : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

October 08, 2010

Dr. Dieter Stegemann

Remark: The test results relate only to the items tested. Extracts of the report shall not be reproduced without written approval of the GfA mbH.

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Ireland

October 08, 2010

Our ref.: 61243-011 P01-079-Kr
Please include in all correspondences

Your ref.: ./.
Project manager: Dr. D. Stegemann
Direct dial: -115

**Analysis of 38 cow's milk samples for PCDF/Ds and PCBs;
Your order PO 030350 dated July 28, 2010**

Dear Dr. Concannon,

Enclosed please find our final test report concerning the investigations mentioned above.

If you have any questions please don't hesitate to contact us.

Best regards

Dr. Dieter Stegemann