Test report

61243-008-09G6269

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

Order dated: July 22, 2009

Sample: Cow's milk samples, details see table

Sample-No.	GfA sample No.	Client's sample characterization
A1	09G6269.1	Cow milk
A2	09G6269.2	Cow milk
A3	09G6269.3	Cow milk
A4	09G6269.4	Cow milk
A5	09G6269.5	Cow milk
A6	09G6269.6	Cow milk
A7	09G6269.7	Cow milk
A8	09G6269.8	Cow milk
A9	09G6269.9	Cow milk
A10	09G6269.10	Cow milk
A11	09G6269.11	Cow milk
A12	09G6269.12	Cow milk
A13	09G6269.13	Cow milk
A14	09G6269.14	Cow milk
A15	09G6269.15	Cow milk
A16	09G6269.16	Cow milk
A18	09G6269.17	Cow milk
A19	09G6269.18	Cow milk
A20	09G6269.19	Cow milk
A21	09G6269.20	Cow milk
A22	09G6269.21	Cow milk
A23	09G6269.22	Cow milk
A24	09G6269.23	Cow milk
A25	09G6269.24	Cow milk

Sample-No.	GfA sample No.	Client's sample characterization
B1	09G6269.25	Cow milk
B2	09G6269.26	Cow milk
B3	09G6269.27	Cow milk
B4	09G6269.28	Cow milk
B5	09G6269.29	Cow milk
B6	09G6269.30	Cow milk
B7	09G6269.31	Cow milk
B8	09G6269.32	Cow milk
B9	09G6269.33	Cow milk
B13	09G6269.34	Cow milk
B14	09G6269.35	Cow milk
B15	09G6269.36	Cow milk
B17	09G6269.37	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 24, 2009

Test method:

Sample preparation

Freeze drying; Homogenisation; Soxhlet extraction of a representative sample amount by means of Toluene. Addition of sixteen $^{13}C_{12}$-labelled internal Tetra- through OctaCDF/D standards and twelve $^{13}C_{12}$-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 $^{13}C_{12}$-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 $^{13}C_{12}$-labeld 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 24, 2009

End of testing: November 06, 2009

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 2009 (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	0,239	0,122	0,361
A2	0,213	0,130	0,343
A3	0,346	0,121	0,467
A4	0,306	0,122	0,428
A5	0,287	0,105	0,392
A6	0,259	0,169	0,428
A7	0,278	0,114	0,392
A8	0,267	0,175	0,442
A9	0,268	0,119	0,387
A10	0,215	0,124	0,339
A11	0,240	0,114	0,354
A12	0,228	0,132	0,360
A13	0,236	0,135	0,371
A14	0,204	0,147	0,351
A15	0,229	0,122	0,351
A16	0,205	0,117	0,322
A18	0,217	0,137	0,354
A19	0,225	0,139	0,364
A20	0,257	0,127	0,384
A21	0,215	0,149	0,364
A22	0,206	0,109	0,315
A23	0,229	0,124	0,353
A24	0,231	0,105	0,336
A25	0,225	0,140	0,365
B1	0,233	0,148	0,381
B2	0,200	0,148	0,348
B3	0,203	0,214	0,417
B4	0,204	0,210	0,414
B5	0,195	0,106	0,301
B6	0,180	0,139	0,319
B7	0,217	0,102	0,319
B8	0,300	0,597	0,897
B9	0,201	0,232	0,433
B13	0,214	0,203	0,417
B14	0,219	0,131	0,350
B15	0,206	0,155	0,361
B17	0,236	0,122	0,358

[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 2009 (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	0,217	0,158	0,375
A2	0,199	0,163	0,362
A3	0,284	0,136	0,420
A4	0,267	0,155	0,422
A5	0,262	0,141	0,403
A6	0,232	0,189	0,421
A7	0,265	0,149	0,414
A8	0,251	0,205	0,456
A9	0,254	0,155	0,409
A10	0,200	0,150	0,350
A11	0,217	0,139	0,356
A12	0,208	0,164	0,372
A13	0,215	0,169	0,384
A14	0,190	0,178	0,368
A15	0,213	0,159	0,372
A16	0,191	0,152	0,343
A18	0,196	0,167	0,363
A19	0,204	0,175	0,379
A20	0,223	0,162	0,385
A21	0,198	0,185	0,383
A22	0,193	0,147	0,340
A23	0,207	0,155	0,362
A24	0,208	0,146	0,354
A25	0,203	0,168	0,371
B1	0,209	0,175	0,384
B2	0,187	0,177	0,364
B3	0,190	0,233	0,423
B4	0,190	0,209	0,399
B5	0,182	0,139	0,321
B6	0,166	0,159	0,325
B7	0,191	0,129	0,320
B8	0,255	0,507	0,762
B9	0,175	0,237	0,412
B13	0,192	0,229	0,421
B14	0,200	0,160	0,360
B15	0,185	0,172	0,357
B17	0,211	0,154	0,365

[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 09G6269.1		A2 09G6269.2	
Fat content [%]	4,0		2,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,09	< 0,003	< 0,08	< 0,002
12378-PentaCDF	< 0,07	< 0,003	< 0,08	< 0,002
23478-PentaCDF	0,11	0,004	< 0,07	< 0,002
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
123678-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
234678-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,002
1234678-HeptaCDF	< 0,17	< 0,007	< 0,16	< 0,005
1234789-HeptaCDF	< 0,09	< 0,003	< 0,08	< 0,002
OctaCDF	< 0,47	< 0,02	< 0,43	< 0,01
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,08	< 0,003	< 0,07	< 0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,002
123678-HexaCDD	< 0,08	< 0,003	< 0,07	< 0,002
123789-HexaCDD	< 0,08	< 0,003	< 0,09	< 0,002
1234678-HeptaCDD	< 0,43	< 0,02	< 0,40	< 0,01
OctaCDD	< 6,42	< 0,25	< 5,95	< 0,17
WHO-PCDD/F-TEQ excl. LOQ [a]	0,055	0,002	ND	ND
WHO-PCDD/F-TEQ incl. LOQ [b]	0,239	0,009	0,213	0,006
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,033	0,001	ND	ND
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,217	0,009	0,199	0,006
Recovery Rates	%		%	
13C12-2378-TetraCDF	54,4		75,2	
13C12-12378-PentaCDF	35,5		32,3	
13C12-23478-PentaCDF	34,6		41,6	
13C12-123478-HexaCDF	60,3		66,4	
13C12-123678-HexaCDF	59,8		63,2	
13C12-123789-HexaCDF	55,0		57,7	
13C12-234678-HexaCDF	58,0		68,0	
13C12-1234678-HeptaCDF	43,1		46,4	
13C12-1234789-HeptaCDF	60,3		60,2	
13C12-OctaCDF	54,5		51,4	
13C12-2378-TetraCDD	60,5		82,1	
13C12-12378-PentaCDD	51,7		60,5	
13C12-123478-HexaCDD	65,9		70,8	
13C12-123678-HexaCDD	51,6		55,7	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	62,3		65,5	
13C12-OctaCDD	53,6		52,9	

< : 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. 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 09G6269.3		A4 09G6269.4	
Fat content [%]	3,9		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	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,07	< 0,002
23478-PentaCDF	0,31	0,01	0,19	0,007
123478-HexaCDF	0,1	0,004	< 0,07	< 0,003
123678-HexaCDF	0,07	0,003	< 0,07	< 0,002
123789-HexaCDF	< 0,06	< 0,002	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,08	< 0,003
1234678-HeptaCDF	< 0,14	< 0,005	< 0,17	< 0,006
1234789-HeptaCDF	< 0,07	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,39	< 0,02	< 0,46	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,001	< 0,04	< 0,002
12378-PentaCDD	0,09	0,003	< 0,1	< 0,004
123478-HexaCDD	< 0,07	< 0,003	< 0,08	< 0,003
123678-HexaCDD	0,09	0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,36	< 0,01	< 0,42	< 0,02
OctaCDD	< 5,36	< 0,21	< 6,26	< 0,24
WHO-PCDD/F-TEQ excl. LOQ [a]	0,268	0,010	0,096	0,004
WHO-PCDD/F-TEQ incl. LOQ [b]	0,346	0,013	0,306	0,012
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,206	0,008	0,058	0,002
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,284	0,011	0,267	0,010
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	59,7		74,5	
13C12-12378-PentaCDF	56,1		54,8	
13C12-23478-PentaCDF	60,8		74,4	
13C12-123478-HexaCDF	67,3		76,1	
13C12-123678-HexaCDF	63,9		72,0	
13C12-123789-HexaCDF	60,0		67,5	
13C12-234678-HexaCDF	65,6		74,5	
13C12-1234678-HeptaCDF	50,0		64,7	
13C12-1234789-HeptaCDF	66,1		83,4	
13C12-OctaCDF	53,6		64,0	
13C12-2378-TetraCDD	66,9		83,8	
13C12-12378-PentaCDD	53,0		66,7	
13C12-123478-HexaCDD	72,4		84,9	
13C12-123678-HexaCDD	52,4		61,6	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	68,7		88,6	
13C12-OctaCDD	53,5		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. 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 09G6269.5		A6 09G6269.6	
Fat content [%]	3,6		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,08	< 0,003
23478-PentaCDF	< 0,13	< 0,005	0,13	0,005
123478-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,07	< 0,003
123789-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,08	< 0,003
1234678-HeptaCDF	< 0,15	< 0,005	< 0,17	< 0,007
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,42	< 0,02	< 0,46	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,002	< 0,04	< 0,002
12378-PentaCDD	< 0,11	< 0,004	< 0,08	< 0,003
123478-HexaCDD	< 0,07	< 0,003	< 0,08	< 0,003
123678-HexaCDD	< 0,07	< 0,003	< 0,08	< 0,003
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	< 0,38	< 0,01	< 0,42	< 0,02
OctaCDD	< 5,76	< 0,21	< 6,32	< 0,25
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,066	0,003
WHO-PCDD/F-TEQ incl. LOQ [b]	0,287	0,010	0,259	0,010
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,040	0,002
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,262	0,009	0,232	0,009
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	72,6		75,9	
13C12-12378-PentaCDF	50,5		36,9	
13C12-23478-PentaCDF	56,1		44,2	
13C12-123478-HexaCDF	70,6		74,2	
13C12-123678-HexaCDF	69,9		71,6	
13C12-123789-HexaCDF	64,1		64,6	
13C12-234678-HexaCDF	77,9		73,7	
13C12-1234678-HeptaCDF	46,5		49,6	
13C12-1234789-HeptaCDF	61,9		58,4	
13C12-OctaCDF	52,7		50,6	
13C12-2378-TetraCDD	85,0		71,5	
13C12-12378-PentaCDD	58,8		61,2	
13C12-123478-HexaCDD	65,8		66,2	
13C12-123678-HexaCDD	50,8		56,4	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	68,7		63,6	
13C12-OctaCDD	56,9		52,8	

< : 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 09G6269.7		A8 09G6269.8	
Fat content [%]	3,8		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,09	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,07	< 0,003
23478-PentaCDF	< 0,06	< 0,002	0,08	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,07	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDF	< 0,16	< 0,006	< 0,17	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,09	< 0,003
OctaCDF	< 0,44	< 0,02	< 0,48	< 0,02
PCDD				
2378-TetraCDD	< 0,10	< 0,004	< 0,07	< 0,003
12378-PentaCDD	< 0,08	< 0,003	< 0,08	< 0,003
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	< 0,40	< 0,02	< 0,44	< 0,02
OctaCDD	< 6,05	< 0,23	< 6,53	< 0,25
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,040	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,278	0,011	0,267	0,010
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,024	0,0009
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,265	0,010	0,251	0,009
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	69,4		79,4	
13C12-12378-PentaCDF	54,5		48,2	
13C12-23478-PentaCDF	75,3		44,7	
13C12-123478-HexaCDF	56,0		62,4	
13C12-123678-HexaCDF	55,6		73,0	
13C12-123789-HexaCDF	55,0		79,4	
13C12-234678-HexaCDF	57,7		67,2	
13C12-1234678-HeptaCDF	53,8		47,5	
13C12-1234789-HeptaCDF	59,6		66,2	
13C12-OctaCDF	43,4		51,6	
13C12-2378-TetraCDD	70,1		88,9	
13C12-12378-PentaCDD	69,8		78,9	
13C12-123478-HexaCDD	65,0		64,7	
13C12-123678-HexaCDD	60,0		61,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	65,8		67,2	
13C12-OctaCDD	50,0		51,1	

< : 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. 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 09G6269.9		A10 09G6269.10	
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	< 0,11	< 0,005	< 0,08	< 0,003
12378-PentaCDF	< 0,07	< 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	< 0,07	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,17	< 0,007	< 0,16	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,46	< 0,02	< 0,44	< 0,02
PCDD				
2378-TetraCDD	< 0,08	< 0,003	< 0,03	< 0,001
12378-PentaCDD	< 0,08	< 0,003	< 0,07	< 0,003
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	< 0,42	< 0,02	< 0,40	< 0,02
OctaCDD	< 6,30	< 0,26	< 6,00	< 0,24
WHO-PCDD/F-TEQ excl. LOQ [a]	0,035	0,001	0,038	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,268	0,011	0,215	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,021	0,0009	0,023	0,0009
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,254	0,010	0,200	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	60,2		105	
13C12-12378-PentaCDF	60,3		62,8	
13C12-23478-PentaCDF	66,5		80,5	
13C12-123478-HexaCDF	59,9		56,7	
13C12-123678-HexaCDF	63,4		54,3	
13C12-123789-HexaCDF	56,2		52,2	
13C12-234678-HexaCDF	63,9		54,5	
13C12-1234678-HeptaCDF	50,8		57,8	
13C12-1234789-HeptaCDF	68,1		59,7	
13C12-OctaCDF	54,0		56,7	
13C12-2378-TetraCDD	70,2		75,8	
13C12-12378-PentaCDD	69,4		69,8	
13C12-123478-HexaCDD	67,0		66,7	
13C12-123678-HexaCDD	65,2		57,4	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	65,9		64,4	
13C12-OctaCDD	50,6		60,2	

< : 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. 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 09G6269.11		A12 09G6269.12	
Fat content [%]	3,8		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	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,12	0,004	0,1	0,004
123478-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,15	< 0,006	< 0,15	< 0,006
1234789-HeptaCDF	< 0,07	< 0,003	< 0,07	< 0,003
OctaCDF	< 0,41	< 0,02	< 0,41	< 0,02
PCDD				
2378-TetraCDD	< 0,05	< 0,002	< 0,05	< 0,002
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 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	< 0,37	< 0,01	< 0,37	< 0,01
OctaCDD	< 5,57	< 0,21	< 5,55	< 0,21
WHO-PCDD/F-TEQ excl. LOQ [a]	0,058	0,002	0,050	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,240	0,009	0,228	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,035	0,001	0,030	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,217	0,008	0,208	0,008
Recovery Rates	%		%	
13C12-2378-TetraCDF	94,0		94,6	
13C12-12378-PentaCDF	57,4		61,7	
13C12-23478-PentaCDF	76,6		69,1	
13C12-123478-HexaCDF	55,4		51,3	
13C12-123678-HexaCDF	52,6		51,5	
13C12-123789-HexaCDF	47,9		50,9	
13C12-234678-HexaCDF	51,4		51,2	
13C12-1234678-HeptaCDF	54,3		45,2	
13C12-1234789-HeptaCDF	57,7		52,9	
13C12-OctaCDF	57,9		45,3	
13C12-2378-TetraCDD	70,6		66,3	
13C12-12378-PentaCDD	63,7		63,9	
13C12-123478-HexaCDD	65,6		61,1	
13C12-123678-HexaCDD	55,5		52,0	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	62,2		58,1	
13C12-OctaCDD	61,4		47,4	

< : 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 09G6269.13		A14 09G6269.14	
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	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	0,10	0,004	0,07	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,007	< 0,15	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,43	< 0,02	< 0,43	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,002	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 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	< 0,40	< 0,02	< 0,39	< 0,02
OctaCDD	< 5,95	< 0,26	< 5,86	< 0,24
WHO-PCDD/F-TEQ excl. LOQ [a]	0,051	0,002	0,035	0,001
WHO-PCDD/F-TEQ incl. LOQ [b]	0,236	0,010	0,204	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,031	0,001	0,021	0,0009
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,215	0,009	0,190	0,008
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	72,9		84,8	
13C12-12378-PentaCDF	54,5		61,1	
13C12-23478-PentaCDF	62,8		69,2	
13C12-123478-HexaCDF	62,8		66,5	
13C12-123678-HexaCDF	61,9		68,8	
13C12-123789-HexaCDF	51,9		62,3	
13C12-234678-HexaCDF	61,6		70,9	
13C12-1234678-HeptaCDF	54,0		56,4	
13C12-1234789-HeptaCDF	52,5		59,9	
13C12-OctaCDF	41,9		44,2	
13C12-2378-TetraCDD	72,9		77,1	
13C12-12378-PentaCDD	72,8		78,9	
13C12-123478-HexaCDD	66,1		68,9	
13C12-123678-HexaCDD	64,2		69,5	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	59,1		65,2	
13C12-OctaCDD	39,4		43,7	

< : 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. 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 09G6269.15		A16 09G6269.16	
Fat content [%]	3,9		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,08	0,003	0,07	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
234678-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,006	< 0,15	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,44	< 0,02	< 0,42	< 0,02
PCDD				
2378-TetraCDD	< 0,04	< 0,002	< 0,03	< 0,001
12378-PentaCDD	< 0,08	< 0,003	< 0,07	< 0,003
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	< 0,40	< 0,02	< 0,38	< 0,01
OctaCDD	< 6,05	< 0,24	< 5,75	< 0,21
WHO-PCDD/F-TEQ excl. LOQ [a]	0,040	0,002	0,035	0,001
WHO-PCDD/F-TEQ incl. LOQ [b]	0,229	0,009	0,205	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,024	0,001	0,021	0,0008
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,213	0,008	0,191	0,007
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	64,3		82,3	
13C12-12378-PentaCDF	46,6		87,8	
13C12-23478-PentaCDF	58,8		110	
13C12-123478-HexaCDF	58,2		64,9	
13C12-123678-HexaCDF	56,1		61,4	
13C12-123789-HexaCDF	58,7		66,0	
13C12-234678-HexaCDF	65,2		71,9	
13C12-1234678-HeptaCDF	62,7		61,6	
13C12-1234789-HeptaCDF	76,2		71,7	
13C12-OctaCDF	65,3		51,4	
13C12-2378-TetraCDD	68,3		85,3	
13C12-12378-PentaCDD	60,7		73,2	
13C12-123478-HexaCDD	77,6		83,6	
13C12-123678-HexaCDD	66,9		70,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	91,2		83,7	
13C12-OctaCDD	74,0		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. 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 09G6269.17		A19 09G6269.18	
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	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,003
23478-PentaCDF	0,11	0,004	0,11	0,004
123478-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,15	< 0,006	< 0,16	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,42	< 0,02	< 0,44	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 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	< 0,38	< 0,01	< 0,40	< 0,02
OctaCDD	< 5,71	< 0,21	< 5,99	< 0,25
WHO-PCDD/F-TEQ excl. LOQ [a]	0,053	0,002	0,053	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,217	0,008	0,225	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,032	0,001	0,032	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,196	0,007	0,204	0,008
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	70,9		80,4	
13C12-12378-PentaCDF	81,4		54,3	
13C12-23478-PentaCDF	94,7		62,7	
13C12-123478-HexaCDF	58,2		61,2	
13C12-123678-HexaCDF	55,1		59,6	
13C12-123789-HexaCDF	55,2		62,1	
13C12-234678-HexaCDF	57,9		65,8	
13C12-1234678-HeptaCDF	54,0		54,5	
13C12-1234789-HeptaCDF	59,4		62,6	
13C12-OctaCDF	39,5		37,6	
13C12-2378-TetraCDD	74,8		81,7	
13C12-12378-PentaCDD	63,3		68,7	
13C12-123478-HexaCDD	69,7		73,4	
13C12-123678-HexaCDD	61,1		64,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	70,2		75,4	
13C12-OctaCDD	40,9		42,2	

< : 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. 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 09G6269.19		A21 09G6269.20	
Fat content [%]	4,2		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,002
23478-PentaCDF	0,17	0,007	0,08	0,003
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,007	< 0,16	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,44	< 0,02	< 0,44	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 0,003
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	< 0,40	< 0,02	< 0,40	< 0,02
OctaCDD	< 5,99	< 0,25	< 6,04	< 0,23
WHO-PCDD/F-TEQ excl. LOQ [a]	0,085	0,004	0,041	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,257	0,011	0,215	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,051	0,002	0,025	0,0009
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,223	0,009	0,198	0,007
Recovery Rates	%		%	
13C12-2378-TetraCDF	119		101	
13C12-12378-PentaCDF	75,4		66,8	
13C12-23478-PentaCDF	97,6		79,8	
13C12-123478-HexaCDF	76,7		69,3	
13C12-123678-HexaCDF	74,1		67,5	
13C12-123789-HexaCDF	80,8		72,1	
13C12-234678-HexaCDF	80,1		72,2	
13C12-1234678-HeptaCDF	57,7		54,9	
13C12-1234789-HeptaCDF	74,7		51,1	
13C12-OctaCDF	47,3		47,6	
13C12-2378-TetraCDD	125		66,3	
13C12-12378-PentaCDD	96,0		82,4	
13C12-123478-HexaCDD	77,2		70,7	
13C12-123678-HexaCDD	77,2		70,4	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	71,8		56,5	
13C12-OctaCDD	50,6		45,7	

< : 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. 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 09G6269.21		A23 09G6269.22	
Fat content [%]	4,2		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,06	< 0,003
23478-PentaCDF	< 0,06	< 0,003	0,11	0,004
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,007	< 0,16	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,44	< 0,02	< 0,44	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 0,003
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	< 0,40	< 0,02	< 0,40	< 0,02
OctaCDD	< 6,05	< 0,25	< 6,04	< 0,24
WHO-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,056	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,206	0,009	0,229	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	ND	ND	0,033	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,193	0,008	0,207	0,008
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	104		111	
13C12-12378-PentaCDF	75,7		78,7	
13C12-23478-PentaCDF	89,9		89,7	
13C12-123478-HexaCDF	82,3		80,7	
13C12-123678-HexaCDF	80,0		79,4	
13C12-123789-HexaCDF	76,3		79,7	
13C12-234678-HexaCDF	85,6		87,4	
13C12-1234678-HeptaCDF	69,2		66,0	
13C12-1234789-HeptaCDF	74,5		80,8	
13C12-OctaCDF	53,7		59,8	
13C12-2378-TetraCDD	98,4		107	
13C12-12378-PentaCDD	90,3		96,7	
13C12-123478-HexaCDD	83,1		80,8	
13C12-123678-HexaCDD	85,5		82,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	74,4		75,4	
13C12-OctaCDD	55,8		58,0	

< : 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 09G6269.23		A25 09G6269.24	
Fat content [%]	3,6		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,003
23478-PentaCDF	0,11	0,004	0,11	0,005
123478-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,006	< 0,16	< 0,007
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,44	< 0,02	< 0,43	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 0,003
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	< 0,40	< 0,01	< 0,39	< 0,02
OctaCDD	< 6,05	< 0,22	< 5,91	< 0,25
WHO-PCDD/F-TEQ excl. LOQ [a]	0,057	0,002	0,055	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,231	0,008	0,225	0,01
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,034	0,001	0,033	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,208	0,008	0,203	0,009
Recovery Rates	%		%	
13C12-2378-TetraCDF	115		99,7	
13C12-12378-PentaCDF	74,1		70,6	
13C12-23478-PentaCDF	83,8		87,5	
13C12-123478-HexaCDF	72,3		75,5	
13C12-123678-HexaCDF	70,0		73,6	
13C12-123789-HexaCDF	72,7		76,2	
13C12-234678-HexaCDF	76,6		77,8	
13C12-1234678-HeptaCDF	58,4		66,2	
13C12-1234789-HeptaCDF	71,5		74,0	
13C12-OctaCDF	52,0		52,6	
13C12-2378-TetraCDD	110		96,3	
13C12-12378-PentaCDD	90,5		103	
13C12-123478-HexaCDD	71,4		84,5	
13C12-123678-HexaCDD	72,1		90,4	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	68,2		83,1	
13C12-OctaCDD	48,0		49,2	

< : 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. 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 09G6269.25		B2 09G6269.26	
Fat content [%]	3,7		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,003
23478-PentaCDF	0,12	0,004	< 0,06	< 0,003
123478-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
123789-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,006	< 0,15	< 0,007
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	0,54	0,02	< 0,43	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 0,003
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	0,50	0,02	< 0,39	< 0,02
OctaCDD	8,40	0,31	< 5,86	< 0,25
WHO-PCDD/F-TEQ excl. LOQ [a]	0,066	0,002	ND	ND
WHO-PCDD/F-TEQ incl. LOQ [b]	0,233	0,009	0,200	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,044	0,002	ND	ND
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,209	0,008	0,187	0,008
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	77,6		90,1	
13C12-12378-PentaCDF	59,2		60,9	
13C12-23478-PentaCDF	55,9		80,8	
13C12-123478-HexaCDF	50,8		73,8	
13C12-123678-HexaCDF	58,1		70,8	
13C12-123789-HexaCDF	67,6		68,7	
13C12-234678-HexaCDF	61,2		74,8	
13C12-1234678-HeptaCDF	44,8		65,8	
13C12-1234789-HeptaCDF	66,4		71,0	
13C12-OctaCDF	42,3		55,7	
13C12-2378-TetraCDD	73,6		86,4	
13C12-12378-PentaCDD	84,3		90,3	
13C12-123478-HexaCDD	56,4		81,2	
13C12-123678-HexaCDD	61,6		84,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	66,5		80,7	
13C12-OctaCDD	39,6		52,8	

< : 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. 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 09G6269.27		B4 09G6269.28	
Fat content [%]	3,5		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,07	0,002	0,07	0,003
123478-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,002
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,005	< 0,15	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,08	< 0,003
OctaCDF	< 0,43	< 0,02	< 0,43	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 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	< 0,39	< 0,01	< 0,39	< 0,01
OctaCDD	< 5,91	< 0,20	< 5,83	< 0,22
WHO-PCDD/F-TEQ excl. LOQ [a]	0,033	0,001	0,037	0,001
WHO-PCDD/F-TEQ incl. LOQ [b]	0,203	0,007	0,204	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,020	0,0007	0,022	0,0008
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,190	0,007	0,190	0,007
Recovery Rates	%		%	
13C12-2378-TetraCDF	74,7		100	
13C12-12378-PentaCDF	62,3		63,2	
13C12-23478-PentaCDF	77,0		87,7	
13C12-123478-HexaCDF	66,6		74,6	
13C12-123678-HexaCDF	64,4		73,8	
13C12-123789-HexaCDF	67,4		76,7	
13C12-234678-HexaCDF	70,1		80,8	
13C12-1234678-HeptaCDF	62,2		70,7	
13C12-1234789-HeptaCDF	66,5		78,8	
13C12-OctaCDF	46,8		58,8	
13C12-2378-TetraCDD	76,7		96,6	
13C12-12378-PentaCDD	86,8		97,0	
13C12-123478-HexaCDD	79,7		86,9	
13C12-123678-HexaCDD	81,6		90,6	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	78,4		90,2	
13C12-OctaCDD	45,1		57,9	

< : 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. 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 09G6269.29		B6 09G6269.30	
Fat content [%]	4,0		2,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,07	< 0,002
12378-PentaCDF	< 0,06	< 0,002	< 0,05	< 0,001
23478-PentaCDF	0,06	0,003	0,07	0,002
123478-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,001
123789-HexaCDF	< 0,06	< 0,003	< 0,06	< 0,002
234678-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,002
1234678-HeptaCDF	< 0,15	< 0,006	< 0,13	< 0,004
1234789-HeptaCDF	< 0,08	< 0,003	< 0,07	< 0,002
OctaCDF	< 0,42	< 0,02	< 0,37	< 0,01
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,0007
12378-PentaCDD	< 0,07	< 0,003	< 0,06	< 0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,06	< 0,002
123678-HexaCDD	< 0,07	< 0,003	< 0,06	< 0,002
123789-HexaCDD	< 0,07	< 0,003	< 0,06	< 0,002
1234678-HeptaCDD	< 0,38	< 0,02	< 0,34	< 0,009
OctaCDD	< 5,66	< 0,23	< 5,08	< 0,13
WHO-PCDD/F-TEQ excl. LOQ [a]	0,032	0,001	0,034	0,0009
WHO-PCDD/F-TEQ incl. LOQ [b]	0,195	0,008	0,180	0,005
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,019	0,0008	0,020	0,0005
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,182	0,007	0,166	0,004
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	84,7		88,8	
13C12-12378-PentaCDF	82,1		73,7	
13C12-23478-PentaCDF	84,6		77,6	
13C12-123478-HexaCDF	113		109	
13C12-123678-HexaCDF	95,2		94,0	
13C12-123789-HexaCDF	71,5		75,8	
13C12-234678-HexaCDF	94,3		95,8	
13C12-1234678-HeptaCDF	82,8		68,4	
13C12-1234789-HeptaCDF	104		93,8	
13C12-OctaCDF	42,3		42,0	
13C12-2378-TetraCDD	50,0		64,5	
13C12-12378-PentaCDD	75,2		71,2	
13C12-123478-HexaCDD	110		109	
13C12-123678-HexaCDD	85,3		82,3	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	71,5		72,2	
13C12-OctaCDD	42,8		42,0	

< : 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. 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 09G6269.31		B8 09G6269.32	
Fat content [%]	4,0		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	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,13	0,005	0,22	0,01
123478-HexaCDF	0,07	0,003	0,11	0,005
123678-HexaCDF	< 0,06	< 0,002	0,07	0,003
123789-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,003
234678-HexaCDF	< 0,06	< 0,003	0,08	0,003
1234678-HeptaCDF	< 0,14	< 0,006	< 0,14	< 0,006
1234789-HeptaCDF	< 0,07	< 0,003	< 0,07	< 0,003
OctaCDF	< 0,39	< 0,02	< 0,38	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	0,03	0,001
12378-PentaCDD	< 0,06	< 0,003	0,08	0,003
123478-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
123678-HexaCDD	< 0,07	< 0,003	0,13	0,006
123789-HexaCDD	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDD	< 0,35	< 0,01	< 0,35	< 0,01
OctaCDD	< 5,26	< 0,21	< 5,22	< 0,22
WHO-PCDD/F-TEQ excl. LOQ [a]	0,072	0,003	0,265	0,011
WHO-PCDD/F-TEQ incl. LOQ [b]	0,217	0,009	0,300	0,013
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,046	0,002	0,220	0,009
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,191	0,008	0,255	0,011
Recovery Rates	%		%	
13C12-2378-TetraCDF	73,3		76,3	
13C12-12378-PentaCDF	67,7		70,4	
13C12-23478-PentaCDF	74,4		72,9	
13C12-123478-HexaCDF	65,2		68,4	
13C12-123678-HexaCDF	67,1		69,5	
13C12-123789-HexaCDF	59,3		61,6	
13C12-234678-HexaCDF	64,1		66,5	
13C12-1234678-HeptaCDF	61,2		60,6	
13C12-1234789-HeptaCDF	56,7		56,5	
13C12-OctaCDF	45,5		47,5	
13C12-2378-TetraCDD	75,2		74,0	
13C12-12378-PentaCDD	75,0		75,9	
13C12-123478-HexaCDD	70,4		70,9	
13C12-123678-HexaCDD	70,7		71,3	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	61,5		60,6	
13C12-OctaCDD	44,7		45,3	

< : 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)
[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 09G6269.33		B13 09G6269.34	
Fat content [%]	4,1		4,1	
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	< 0,002
23478-PentaCDF	0,13	0,005	0,11	0,005
123478-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,003
123678-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,003
234678-HexaCDF	< 0,06	< 0,002	< 0,07	< 0,003
1234678-HeptaCDF	< 0,12	< 0,005	< 0,14	< 0,006
1234789-HeptaCDF	< 0,06	< 0,003	< 0,07	< 0,003
OctaCDF	< 0,34	< 0,01	< 0,40	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,06	< 0,002	0,07	0,003
123478-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
123678-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
123789-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
1234678-HeptaCDD	< 0,31	< 0,01	< 0,36	< 0,01
OctaCDD	< 4,59	< 0,19	< 5,43	< 0,22
WHO-PCDD/F-TEQ excl. LOQ [a]	0,065	0,003	0,125	0,005
WHO-PCDD/F-TEQ incl. LOQ [b]	0,201	0,008	0,214	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,039	0,002	0,103	0,004
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,175	0,007	0,192	0,008
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	61,2		72,8	
13C12-12378-PentaCDF	56,7		72,0	
13C12-23478-PentaCDF	61,1		78,6	
13C12-123478-HexaCDF	58,6		70,0	
13C12-123678-HexaCDF	57,9		72,7	
13C12-123789-HexaCDF	44,8		62,4	
13C12-234678-HexaCDF	51,7		67,9	
13C12-1234678-HeptaCDF	47,5		61,9	
13C12-1234789-HeptaCDF	44,3		56,7	
13C12-OctaCDF	38,5		56,8	
13C12-2378-TetraCDD	60,5		79,1	
13C12-12378-PentaCDD	60,4		75,0	
13C12-123478-HexaCDD	58,8		72,3	
13C12-123678-HexaCDD	60,0		74,6	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	47,8		60,9	
13C12-OctaCDD	35,0		50,9	

< : 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. 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 09G6269.35		B15 09G6269.36	
Fat content [%]	3,7		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
PCDF				
2378-TetraCDF	< 0,08	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,09	0,003	0,10	0,004
123478-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,002
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,006	< 0,14	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003	< 0,07	< 0,003
OctaCDF	< 0,44	< 0,02	< 0,39	< 0,02
PCDD				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003	< 0,07	< 0,003
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	< 0,40	< 0,01	< 0,36	< 0,01
OctaCDD	< 5,98	< 0,22	< 5,38	< 0,21
WHO-PCDD/F-TEQ excl. LOQ [a]	0,047	0,002	0,051	0,002
WHO-PCDD/F-TEQ incl. LOQ [b]	0,219	0,008	0,206	0,008
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,028	0,001	0,031	0,001
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,200	0,007	0,185	0,007
Recovery Rates	**%**		**%**	
13C12-2378-TetraCDF	82,3		87,4	
13C12-12378-PentaCDF	72,6		79,3	
13C12-23478-PentaCDF	80,9		88,0	
13C12-123478-HexaCDF	72,5		84,1	
13C12-123678-HexaCDF	71,5		81,9	
13C12-123789-HexaCDF	61,1		68,9	
13C12-234678-HexaCDF	68,1		80,5	
13C12-1234678-HeptaCDF	60,7		69,6	
13C12-1234789-HeptaCDF	55,3		60,3	
13C12-OctaCDF	50,1		57,5	
13C12-2378-TetraCDD	84,3		86,8	
13C12-12378-PentaCDD	79,2		86,5	
13C12-123478-HexaCDD	74,6		84,5	
13C12-123678-HexaCDD	75,3		83,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	58,6		66,0	
13C12-OctaCDD	44,3		55,0	

< : 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. 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 09G6269.37	
Fat content [%]	3,8	
Unit	pg/g fat-weight	pg/g fresh-weight
PCDF		
2378-TetraCDF	< 0,08	< 0,003
12378-PentaCDF	< 0,06	< 0,002
23478-PentaCDF	0,13	0,005
123478-HexaCDF	< 0,07	< 0,003
123678-HexaCDF	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,003
234678-HexaCDF	< 0,07	< 0,003
1234678-HeptaCDF	< 0,16	< 0,006
1234789-HeptaCDF	< 0,08	< 0,003
OctaCDF	< 0,44	< 0,02
PCDD		
2378-TetraCDD	< 0,03	< 0,001
12378-PentaCDD	< 0,07	< 0,003
123478-HexaCDD	< 0,08	< 0,003
123678-HexaCDD	0,08	0,003
123789-HexaCDD	< 0,08	< 0,003
1234678-HeptaCDD	< 0,40	< 0,01
OctaCDD	< 5,94	< 0,22
WHO-PCDD/F-TEQ excl. LOQ [a]	0,073	0,003
WHO-PCDD/F-TEQ incl. LOQ [b]	0,236	0,009
WHO(2005)-PCDD/F-TEQ excl. LOQ [a]	0,047	0,002
WHO(2005)-PCDD/F-TEQ incl. LOQ [b]	0,211	0,008
Recovery Rates	**%**	
13C12-2378-TetraCDF	87,7	
13C12-12378-PentaCDF	85,1	
13C12-23478-PentaCDF	95,6	
13C12-123478-HexaCDF	85,5	
13C12-123678-HexaCDF	88,2	
13C12-123789-HexaCDF	73,2	
13C12-234678-HexaCDF	86,7	
13C12-1234678-HeptaCDF	71,9	
13C12-1234789-HeptaCDF	62,8	
13C12-OctaCDF	60,4	
13C12-2378-TetraCDD	88,6	
13C12-12378-PentaCDD	90,6	
13C12-123478-HexaCDD	88,3	
13C12-123678-HexaCDD	89,5	
13C12-123789-HexaCDD	100	
13C12-1234678-HeptaCDD	63,7	
13C12-OctaCDD	53,8	

< : 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. 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 09G6269.1		A2 09G6269.2	
Fat content [%]	4,0		2,9	
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	< 2,19	< 0,06
TetraCB(#81)	< 0,71	< 0,03	< 0,50	< 0,01
PentaCB(#105)	24,0	0,95	23,1	0,66
PentaCB(#114)	1,59	0,06	1,67	0,05
PentaCB(#118)	92,7	3,66	98,0	2,82
PentaCB(#123)	1,82	0,07	1,77	0,05
PentaCB(#126)	< 0,77	< 0,03	0,88	0,03
HexaCB(#156)	10,7	0,42	9,07	0,26
HexaCB(#157)	2,14	0,08	1,52	0,04
HexaCB(#167)	5,22	0,21	4,72	0,14
HexaCB(#169)	< 2,56	< 0,10	< 2,37	< 0,07
HeptaCB(#189)	< 1,09	< 0,04	< 1,28	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,019	0,0008	0,106	0,003
WHO-PCB-TEQ incl. LOQ [b]	0,122	0,005	0,130	0,004
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,004	0,0002	0,092	0,003
WHO(2005)-PCB-TEQ incl. LOQ b]	0,158	0,006	0,163	0,005
Recovery Rates	%		%	
13C12-TetraCB(#81)	71,2		82,1	
13C12-TetraCB(#77)	59,7		62,5	
13C12-PentaCB(#123)	58,4		68,7	
13C12-PentaCB(#118)	59,1		64,1	
13C12-PentaCB(#114)	56,3		61,2	
13C12-PentaCB(#105)	52,1		61,9	
13C12-PentaCB(#126)	55,1		77,2	
13C12-HexaCB(#167)	70,1		77,3	
13C12-HexaCB(#156)	84,6		78,4	
13C12-HexaCB(#157)	82,5		75,1	
13C12-HexaCB(#169)	66,6		63,6	
13C12-HeptaCB(#189)	71,0		58,3	

< : 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 09G6269.3		A4 09G6269.4	
Fat content [%]	3,9		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 1,97	< 0,08	< 2,31	< 0,09
TetraCB(#81)	< 0,45	< 0,02	< 0,89	< 0,03
PentaCB(#105)	36,5	1,41	23,1	0,87
PentaCB(#114)	3,39	0,13	2,55	0,10
PentaCB(#118)	165	6,36	117	4,42
PentaCB(#123)	2,32	0,09	1,75	0,07
PentaCB(#126)	< 0,64	< 0,02	< 0,75	< 0,03
HexaCB(#156)	22,7	0,88	10,5	0,39
HexaCB(#157)	3,71	0,14	1,97	0,07
HexaCB(#167)	7,25	0,28	3,82	0,14
HexaCB(#169)	< 2,13	< 0,08	< 2,49	< 0,09
HeptaCB(#189)	1,57	0,06	1,48	0,06
WHO-PCB-TEQ excl. LOQ [a]	0,035	0,001	0,022	0,0008
WHO-PCB-TEQ incl. LOQ [b]	0,121	0,005	0,122	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,007	0,0003	0,005	0,0002
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,136	0,005	0,155	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	78,2		96,7	
13C12-TetraCB(#77)	65,3		65,8	
13C12-PentaCB(#123)	56,4		79,3	
13C12-PentaCB(#118)	60,7		70,5	
13C12-PentaCB(#114)	56,3		64,7	
13C12-PentaCB(#105)	53,0		73,4	
13C12-PentaCB(#126)	57,3		91,8	
13C12-HexaCB(#167)	62,1		82,5	
13C12-HexaCB(#156)	60,2		78,4	
13C12-HexaCB(#157)	69,3		78,8	
13C12-HexaCB(#169)	62,1		63,2	
13C12-HeptaCB(#189)	61,2		83,0	

< : 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. 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 09G6269.5		A6 09G6269.6	
Fat content [%]	3,6		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,12	< 0,08	< 2,33	< 0,09
TetraCB(#81)	< 0,49	< 0,02	< 0,53	< 0,02
PentaCB(#105)	15,5	0,56	59,4	2,35
PentaCB(#114)	1,47	0,05	3,16	0,12
PentaCB(#118)	69,1	2,50	214	8,48
PentaCB(#123)	< 0,77	< 0,03	3,32	0,13
PentaCB(#126)	< 0,69	< 0,02	< 1,04	< 0,04
HexaCB(#156)	6,30	0,23	18,0	0,71
HexaCB(#157)	1,66	0,06	2,61	0,10
HexaCB(#167)	2,69	0,1	5,62	0,22
HexaCB(#169)	< 2,29	< 0,08	< 2,52	< 0,1
HeptaCB(#189)	< 0,97	< 0,04	1,39	0,05
WHO-PCB-TEQ excl. LOQ [a]	0,013	0,0005	0,040	0,002
WHO-PCB-TEQ incl. LOQ [b]	0,105	0,004	0,169	0,007
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,003	0,0001	0,009	0,0004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,141	0,005	0,189	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	81,4		79,2	
13C12-TetraCB(#77)	61,2		63,8	
13C12-PentaCB(#123)	69,6		61,3	
13C12-PentaCB(#118)	61,4		60,4	
13C12-PentaCB(#114)	56,1		57,0	
13C12-PentaCB(#105)	65,1		52,2	
13C12-PentaCB(#126)	82,6		54,5	
13C12-HexaCB(#167)	69,5		69,2	
13C12-HexaCB(#156)	69,4		73,0	
13C12-HexaCB(#157)	68,2		72,6	
13C12-HexaCB(#169)	57,3		71,7	
13C12-HeptaCB(#189)	70,1		67,4	

< : 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. 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 09G6269.7		A8 09G6269.8	
Fat content [%]	3,8		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,23	< 0,09	< 2,40	< 0,09
TetraCB(#81)	< 0,54	< 0,02	< 0,97	< 0,04
PentaCB(#105)	20,0	0,77	40,7	1,53
PentaCB(#114)	1,70	0,07	3,04	0,11
PentaCB(#118)	92,2	3,52	147	5,51
PentaCB(#123)	1,79	0,07	2,70	0,10
PentaCB(#126)	< 0,72	< 0,03	1,21	0,05
HexaCB(#156)	8,48	0,32	12,0	0,45
HexaCB(#157)	1,72	0,07	2,32	0,09
HexaCB(#167)	6,71	0,26	4,94	0,19
HexaCB(#169)	< 2,41	< 0,09	< 2,60	< 0,1
HeptaCB(#189)	< 1,02	< 0,04	< 1,10	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,017	0,0007	0,148	0,006
WHO-PCB-TEQ incl. LOQ [b]	0,114	0,004	0,175	0,007
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,004	0,0002	0,127	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,149	0,006	0,205	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	83,0		99,5	
13C12-TetraCB(#77)	61,6		77,4	
13C12-PentaCB(#123)	59,3		76,9	
13C12-PentaCB(#118)	56,3		75,6	
13C12-PentaCB(#114)	50,6		71,3	
13C12-PentaCB(#105)	52,6		69,0	
13C12-PentaCB(#126)	57,4		79,8	
13C12-HexaCB(#167)	55,6		79,9	
13C12-HexaCB(#156)	74,3		86,2	
13C12-HexaCB(#157)	72,1		79,4	
13C12-HexaCB(#169)	73,9		86,5	
13C12-HeptaCB(#189)	66,6		91,7	

< : 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. 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 09G6269.9		A10 09G6269.10	
Fat content [%]	4,1		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,32	< 0,09	< 2,21	< 0,09
TetraCB(#81)	< 0,53	< 0,02	0,52	0,02
PentaCB(#105)	21,3	0,87	44,6	1,80
PentaCB(#114)	1,96	0,08	3,19	0,13
PentaCB(#118)	86,0	3,50	148	5,98
PentaCB(#123)	1,64	0,07	2,62	0,11
PentaCB(#126)	< 0,75	< 0,03	< 0,72	< 0,03
HexaCB(#156)	11,5	0,47	11,7	0,47
HexaCB(#157)	1,75	0,07	2,41	0,1
HexaCB(#167)	4,11	0,17	5,01	0,20
HexaCB(#169)	< 2,51	< 0,10	< 2,39	< 0,1
HeptaCB(#189)	1,29	0,05	1,07	0,04
WHO-PCB-TEQ excl. LOQ [a]	0,019	0,0008	0,028	0,001
WHO-PCB-TEQ incl. LOQ [b]	0,119	0,005	0,124	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,004	0,0002	0,007	0,0003
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,155	0,006	0,150	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	79,7		86,1	
13C12-TetraCB(#77)	62,3		77,9	
13C12-PentaCB(#123)	66,6		91,6	
13C12-PentaCB(#118)	64,4		98,5	
13C12-PentaCB(#114)	55,0		94,6	
13C12-PentaCB(#105)	60,5		84,8	
13C12-PentaCB(#126)	68,2		79,7	
13C12-HexaCB(#167)	79,1		96,1	
13C12-HexaCB(#156)	76,7		94,9	
13C12-HexaCB(#157)	75,3		94,7	
13C12-HexaCB(#169)	59,4		81,8	
13C12-HeptaCB(#189)	66,4		93,2	

< : 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 09G6269.11		A12 09G6269.12	
Fat content [%]	3,8		3,8	
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	< 2,04	< 0,08
TetraCB(#81)	< 0,47	< 0,02	< 0,88	< 0,03
PentaCB(#105)	32,9	1,25	19,6	0,74
PentaCB(#114)	2,73	0,10	1,47	0,06
PentaCB(#118)	128	4,86	75,3	2,85
PentaCB(#123)	2,94	0,11	1,34	0,05
PentaCB(#126)	< 0,66	< 0,03	0,94	0,04
HexaCB(#156)	12,6	0,48	8,33	0,32
HexaCB(#157)	2,76	0,11	1,83	0,07
HexaCB(#167)	5,28	0,20	4,47	0,17
HexaCB(#169)	< 2,22	< 0,08	< 2,21	< 0,08
HeptaCB(#189)	1,42	0,05	1,06	0,04
WHO-PCB-TEQ excl. LOQ [a]	0,026	0,001	0,109	0,004
WHO-PCB-TEQ incl. LOQ [b]	0,114	0,004	0,132	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,006	0,0002	0,097	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,139	0,005	0,164	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	84,5		81,3	
13C12-TetraCB(#77)	73,4		74,6	
13C12-PentaCB(#123)	91,9		91,5	
13C12-PentaCB(#118)	92,6		98,1	
13C12-PentaCB(#114)	93,9		98,3	
13C12-PentaCB(#105)	78,3		79,6	
13C12-PentaCB(#126)	76,7		76,9	
13C12-HexaCB(#167)	91,2		91,5	
13C12-HexaCB(#156)	91,1		92,3	
13C12-HexaCB(#157)	90,9		91,2	
13C12-HexaCB(#169)	80,5		78,3	
13C12-HeptaCB(#189)	84,3		86,5	

< : 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. 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 09G6269.13		A14 09G6269.14	
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)	< 2,19	< 0,1	< 2,16	< 0,09
TetraCB(#81)	< 0,50	< 0,02	< 0,50	< 0,02
PentaCB(#105)	17,9	0,78	26,7	1,11
PentaCB(#114)	2,03	0,09	2,73	0,11
PentaCB(#118)	80,9	3,52	106	4,40
PentaCB(#123)	1,12	0,05	1,80	0,07
PentaCB(#126)	< 0,94	< 0,04	1,03	0,04
HexaCB(#156)	9,98	0,43	9,05	0,38
HexaCB(#157)	1,81	0,08	1,98	0,08
HexaCB(#167)	5,71	0,25	4,06	0,17
HexaCB(#169)	< 2,37	< 0,10	< 2,33	< 0,1
HeptaCB(#189)	1,22	0,05	< 0,99	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,017	0,0007	0,124	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,135	0,006	0,147	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,004	0,0002	0,108	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,169	0,007	0,178	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	85,0		94,5	
13C12-TetraCB(#77)	76,3		87,8	
13C12-PentaCB(#123)	94,3		108	
13C12-PentaCB(#118)	98,8		104	
13C12-PentaCB(#114)	97,2		110	
13C12-PentaCB(#105)	85,4		96,0	
13C12-PentaCB(#126)	79,0		91,4	
13C12-HexaCB(#167)	98,0		102	
13C12-HexaCB(#156)	94,5		100	
13C12-HexaCB(#157)	97,6		101	
13C12-HexaCB(#169)	82,8		87,0	
13C12-HeptaCB(#189)	86,4		92,8	

< : 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. 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 09G6269.15		A16 09G6269.16	
Fat content [%]	3,9		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,23	< 0,09	< 2,12	< 0,08
TetraCB(#81)	< 0,87	< 0,03	< 0,49	< 0,02
PentaCB(#105)	14,1	0,56	15,8	0,58
PentaCB(#114)	< 0,72	< 0,03	< 2,16	< 0,08
PentaCB(#118)	76,7	3,02	61,9	2,28
PentaCB(#123)	< 0,81	< 0,03	< 2,41	< 0,09
PentaCB(#126)	< 0,83	< 0,03	< 0,80	< 0,03
HexaCB(#156)	7,91	0,31	6,99	0,26
HexaCB(#157)	2,28	0,09	1,36	0,05
HexaCB(#167)	4,25	0,17	3,05	0,11
HexaCB(#169)	< 2,41	< 0,09	< 2,29	< 0,08
HeptaCB(#189)	< 1,34	< 0,05	< 1,07	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,014	0,0006	0,012	0,0004
WHO-PCB-TEQ incl. LOQ [b]	0,122	0,005	0,117	0,004
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,003	0,0001	0,003	0,0001
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,159	0,006	0,152	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	57,5		72,2	
13C12-TetraCB(#77)	43,5		62,6	
13C12-PentaCB(#123)	55,9		66,6	
13C12-PentaCB(#118)	58,5		71,9	
13C12-PentaCB(#114)	62,8		71,3	
13C12-PentaCB(#105)	54,6		57,6	
13C12-PentaCB(#126)	47,7		85,5	
13C12-HexaCB(#167)	45,8		70,6	
13C12-HexaCB(#156)	54,5		72,4	
13C12-HexaCB(#157)	56,9		65,3	
13C12-HexaCB(#169)	49,7		71,0	
13C12-HeptaCB(#189)	41,1		54,7	

< : 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. 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 09G6269.17		A19 09G6269.18	
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)	< 2,10	< 0,08	< 2,20	< 0,09
TetraCB(#81)	< 0,53	< 0,02	< 0,51	< 0,02
PentaCB(#105)	20,8	0,76	17,9	0,73
PentaCB(#114)	2,32	0,09	< 1,12	< 0,05
PentaCB(#118)	91,2	3,34	71,1	2,91
PentaCB(#123)	1,02	0,04	1,93	0,08
PentaCB(#126)	< 0,94	< 0,03	< 1,0	< 0,04
HexaCB(#156)	12,8	0,47	9,19	0,38
HexaCB(#157)	2,33	0,09	1,81	0,07
HexaCB(#167)	6,21	0,23	4,69	0,19
HexaCB(#169)	< 2,27	< 0,08	< 2,38	< 0,1
HeptaCB(#189)	< 0,97	< 0,04	< 1,01	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,020	0,0007	0,015	0,0006
WHO-PCB-TEQ incl. LOQ [b]	0,137	0,005	0,139	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,004	0,0002	0,003	0,0001
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,167	0,006	0,175	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	58,9		77,5	
13C12-TetraCB(#77)	55,2		61,8	
13C12-PentaCB(#123)	61,7		62,2	
13C12-PentaCB(#118)	64,1		64,8	
13C12-PentaCB(#114)	65,3		59,1	
13C12-PentaCB(#105)	61,6		63,7	
13C12-PentaCB(#126)	47,7		79,6	
13C12-HexaCB(#167)	60,2		61,4	
13C12-HexaCB(#156)	67,3		69,9	
13C12-HexaCB(#157)	63,3		67,4	
13C12-HexaCB(#169)	57,4		61,8	
13C12-HeptaCB(#189)	48,4		51,9	

< : 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. 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 09G6269.19		A21 09G6269.20	
Fat content [%]	4,2		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,20	< 0,09	< 2,21	< 0,08
TetraCB(#81)	< 0,50	< 0,02	< 0,50	< 0,02
PentaCB(#105)	21,0	0,87	21,1	0,79
PentaCB(#114)	1,92	0,08	1,48	0,06
PentaCB(#118)	91,8	3,82	86,5	3,23
PentaCB(#123)	1,50	0,06	1,62	0,06
PentaCB(#126)	0,86	0,04	1,09	0,04
HexaCB(#156)	8,03	0,33	7,20	0,27
HexaCB(#157)	1,91	0,08	1,79	0,07
HexaCB(#167)	3,11	0,13	2,20	0,08
HexaCB(#169)	< 2,40	< 0,1	< 2,41	< 0,09
HeptaCB(#189)	< 1,0	< 0,04	< 1,01	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,103	0,004	0,125	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,127	0,005	0,149	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,090	0,004	0,112	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,162	0,007	0,185	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	91,6		99,4	
13C12-TetraCB(#77)	76,4		78,1	
13C12-PentaCB(#123)	98,8		95,1	
13C12-PentaCB(#118)	85,0		69,6	
13C12-PentaCB(#114)	77,6		53,7	
13C12-PentaCB(#105)	83,2		74,5	
13C12-PentaCB(#126)	79,0		76,5	
13C12-HexaCB(#167)	116		115	
13C12-HexaCB(#156)	107		83,3	
13C12-HexaCB(#157)	109		108	
13C12-HexaCB(#169)	95,8		103	
13C12-HeptaCB(#189)	88,5		93,6	

< : 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. 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 09G6269.21		A23 09G6269.22	
Fat content [%]	4,2		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,22	< 0,09	< 2,21	< 0,09
TetraCB(#81)	< 0,50	< 0,02	< 0,50	< 0,02
PentaCB(#105)	16,3	0,67	27,3	1,08
PentaCB(#114)	1,30	0,05	1,89	0,08
PentaCB(#118)	78,2	3,24	123	4,91
PentaCB(#123)	0,92	0,04	< 0,80	< 0,03
PentaCB(#126)	< 0,71	< 0,03	0,77	0,03
HexaCB(#156)	6,55	0,27	10,4	0,41
HexaCB(#157)	< 1,19	< 0,05	1,93	0,08
HexaCB(#167)	1,91	0,08	4,29	0,17
HexaCB(#169)	< 2,42	< 0,10	< 2,41	< 0,1
HeptaCB(#189)	< 1,01	< 0,04	< 1,01	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,013	0,0006	0,10	0,004
WHO-PCB-TEQ incl. LOQ [b]	0,109	0,005	0,124	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,003	0,0001	0,083	0,003
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,147	0,006	0,155	0,006
Recovery Rates	%		%	
13C12-TetraCB(#81)	100		109	
13C12-TetraCB(#77)	98,2		106	
13C12-PentaCB(#123)	101		109	
13C12-PentaCB(#118)	98,7		107	
13C12-PentaCB(#114)	104		109	
13C12-PentaCB(#105)	86,9		93,0	
13C12-PentaCB(#126)	73,4		82,1	
13C12-HexaCB(#167)	106		95,2	
13C12-HexaCB(#156)	106		99,6	
13C12-HexaCB(#157)	106		92,1	
13C12-HexaCB(#169)	86,8		80,6	
13C12-HeptaCB(#189)	106		84,3	

< : 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)
[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 09G6269.23		A25 09G6269.24	
Fat content [%]	3,6		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,22	< 0,08	17,1	0,73
TetraCB(#81)	< 0,50	< 0,02	< 0,86	< 0,04
PentaCB(#105)	10,1	0,37	39,1	1,66
PentaCB(#114)	0,95	0,03	2,85	0,12
PentaCB(#118)	52,1	1,89	129	5,50
PentaCB(#123)	< 0,81	< 0,03	1,91	0,08
PentaCB(#126)	< 0,71	< 0,03	0,90	0,04
HexaCB(#156)	4,54	0,16	9,87	0,42
HexaCB(#157)	< 1,19	< 0,04	1,76	0,08
HexaCB(#167)	1,50	0,05	2,37	0,10
HexaCB(#169)	< 2,42	< 0,09	< 2,36	< 0,10
HeptaCB(#189)	< 1,01	< 0,04	< 0,98	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,009	0,0003	0,116	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,105	0,004	0,140	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,002	0,00008	0,097	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,146	0,005	0,168	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	101		87,1	
13C12-TetraCB(#77)	95,0		70,3	
13C12-PentaCB(#123)	105		126	
13C12-PentaCB(#118)	103		123	
13C12-PentaCB(#114)	103		121	
13C12-PentaCB(#105)	85,4		116	
13C12-PentaCB(#126)	73,2		100	
13C12-HexaCB(#167)	99,2		102	
13C12-HexaCB(#156)	102		101	
13C12-HexaCB(#157)	97,0		104	
13C12-HexaCB(#169)	78,2		95,2	
13C12-HeptaCB(#189)	105		98,4	

< : 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. 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 09G6269.25		B2 09G6269.26	
Fat content [%]	3,7		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	24,6	0,90	23,9	1,03
TetraCB(#81)	1,05	0,04	1,16	0,05
PentaCB(#105)	45,7	1,68	42,1	1,81
PentaCB(#114)	2,60	0,1	2,65	0,11
PentaCB(#118)	153	5,63	133	5,69
PentaCB(#123)	3,09	0,11	2,53	0,11
PentaCB(#126)	0,94	0,03	0,98	0,04
HexaCB(#156)	9,00	0,33	8,35	0,36
HexaCB(#157)	1,96	0,07	1,65	0,07
HexaCB(#167)	2,62	0,1	2,31	0,1
HexaCB(#169)	< 2,38	< 0,09	< 2,34	< 0,10
HeptaCB(#189)	< 0,99	< 0,04	< 0,98	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,124	0,005	0,124	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,148	0,005	0,148	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,104	0,004	0,106	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,175	0,006	0,177	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	97,6		85,7	
13C12-TetraCB(#77)	86,5		80,4	
13C12-PentaCB(#123)	79,1		85,1	
13C12-PentaCB(#118)	82,5		88,3	
13C12-PentaCB(#114)	76,9		99,9	
13C12-PentaCB(#105)	101		101	
13C12-PentaCB(#126)	87,3		88,5	
13C12-HexaCB(#167)	65,5		95,3	
13C12-HexaCB(#156)	88,5		94,4	
13C12-HexaCB(#157)	96,8		96,8	
13C12-HexaCB(#169)	83,5		90,1	
13C12-HeptaCB(#189)	73,4		89,3	

< : 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. 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 09G6269.27		B4 09G6269.28	
Fat content [%]	3,5		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	23,5	0,81	22,9	0,87
TetraCB(#81)	1,22	0,04	0,93	0,03
PentaCB(#105)	68,6	2,38	121	4,55
PentaCB(#114)	4,63	0,16	7,50	0,28
PentaCB(#118)	217	7,54	353	13,3
PentaCB(#123)	3,56	0,12	5,72	0,22
PentaCB(#126)	1,50	0,05	1,21	0,05
HexaCB(#156)	12,2	0,42	19,2	0,72
HexaCB(#157)	2,45	0,09	3,75	0,14
HexaCB(#167)	2,99	0,10	4,78	0,18
HexaCB(#169)	< 2,36	< 0,08	< 2,33	< 0,09
HeptaCB(#189)	< 0,98	< 0,03	< 0,97	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,191	0,007	0,187	0,007
WHO-PCB-TEQ incl. LOQ [b]	0,214	0,007	0,210	0,008
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,162	0,006	0,139	0,005
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,233	0,008	0,209	0,008
Recovery Rates	%		%	
13C12-TetraCB(#81)	96,6		95,8	
13C12-TetraCB(#77)	88,3		83,6	
13C12-PentaCB(#123)	105		110	
13C12-PentaCB(#118)	97,3		103	
13C12-PentaCB(#114)	90,8		98,4	
13C12-PentaCB(#105)	95,0		85,7	
13C12-PentaCB(#126)	83,7		72,6	
13C12-HexaCB(#167)	91,4		99,2	
13C12-HexaCB(#156)	93,4		96,0	
13C12-HexaCB(#157)	94,5		97,9	
13C12-HexaCB(#169)	81,4		82,2	
13C12-HeptaCB(#189)	88,3		92,6	

< : 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)
[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 09G6269.29		B6 09G6269.30	
Fat content [%]	4,0		2,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	3,65	0,15	2,46	0,06
TetraCB(#81)	< 0,47	< 0,02	< 0,42	< 0,01
PentaCB(#105)	21,2	0,85	34,8	0,91
PentaCB(#114)	2,01	0,08	1,82	0,05
PentaCB(#118)	82,4	3,31	139	3,66
PentaCB(#123)	4,10	0,16	2,99	0,08
PentaCB(#126)	0,67	0,03	0,92	0,02
HexaCB(#156)	8,17	0,33	12,3	0,32
HexaCB(#157)	1,76	0,07	2,22	0,06
HexaCB(#167)	3,09	0,12	3,23	0,08
HexaCB(#169)	< 2,26	< 0,09	< 2,03	< 0,05
HeptaCB(#189)	< 0,94	< 0,04	< 0,85	< 0,02
WHO-PCB-TEQ excl. LOQ [a]	0,084	0,003	0,118	0,003
WHO-PCB-TEQ incl. LOQ [b]	0,106	0,004	0,139	0,004
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,071	0,003	0,098	0,003
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,139	0,006	0,159	0,004
Recovery Rates	%		%	
13C12-TetraCB(#81)	90,9		99,4	
13C12-TetraCB(#77)	67,2		92,1	
13C12-PentaCB(#123)	97,2		94,6	
13C12-PentaCB(#118)	81,6		89,4	
13C12-PentaCB(#114)	74,3		87,8	
13C12-PentaCB(#105)	77,8		92,8	
13C12-PentaCB(#126)	80,4		93,7	
13C12-HexaCB(#167)	96,5		94,2	
13C12-HexaCB(#156)	96,5		90,2	
13C12-HexaCB(#157)	96,6		87,8	
13C12-HexaCB(#169)	84,9		81,1	
13C12-HeptaCB(#189)	87,3		90,0	

< : 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. 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 09G6269.31		B8 09G6269.32	
Fat content [%]	4,0		4,3	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	4,32	0,17	3,83	0,17
TetraCB(#81)	< 0,44	< 0,02	< 0,43	< 0,02
PentaCB(#105)	24,8	1,0	202	8,70
PentaCB(#114)	2,30	0,09	19,3	0,83
PentaCB(#118)	97,1	3,90	914	39,4
PentaCB(#123)	1,07	0,04	13,9	0,60
PentaCB(#126)	< 0,61	< 0,02	4,05	0,17
HexaCB(#156)	8,47	0,34	74,2	3,19
HexaCB(#157)	2,02	0,08	19,3	0,83
HexaCB(#167)	4,91	0,20	32,8	1,41
HexaCB(#169)	< 2,11	< 0,08	< 2,09	< 0,09
HeptaCB(#189)	0,92	0,04	4,82	0,21
WHO-PCB-TEQ excl. LOQ [a]	0,019	0,0008	0,576	0,025
WHO-PCB-TEQ incl. LOQ [b]	0,102	0,004	0,597	0,026
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,005	0,0002	0,444	0,019
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,129	0,005	0,507	0,022
Recovery Rates	%		%	
13C12-TetraCB(#81)	79,6		87,8	
13C12-TetraCB(#77)	75,8		80,6	
13C12-PentaCB(#123)	85,3		87,9	
13C12-PentaCB(#118)	84,6		88,6	
13C12-PentaCB(#114)	85,5		87,4	
13C12-PentaCB(#105)	77,4		85,9	
13C12-PentaCB(#126)	75,5		84,4	
13C12-HexaCB(#167)	75,8		73,6	
13C12-HexaCB(#156)	77,9		80,3	
13C12-HexaCB(#157)	74,3		75,1	
13C12-HexaCB(#169)	73,5		78,9	
13C12-HeptaCB(#189)	78,8		79,8	

< : 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)
[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 09G6269.33		B13 09G6269.34	
Fat content [%]	4,1		4,1	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	4,02	0,16	2,19	0,09
TetraCB(#81)	< 0,38	< 0,02	< 0,45	< 0,02
PentaCB(#105)	66,7	2,73	19,5	0,79
PentaCB(#114)	5,88	0,24	1,88	0,08
PentaCB(#118)	226	9,26	86,1	3,50
PentaCB(#123)	4,85	0,20	0,84	0,03
PentaCB(#126)	1,71	0,07	1,60	0,06
HexaCB(#156)	13,8	0,56	15,9	0,65
HexaCB(#157)	3,49	0,14	2,93	0,12
HexaCB(#167)	6,90	0,28	9,49	0,39
HexaCB(#169)	< 1,84	< 0,08	< 2,17	< 0,09
HeptaCB(#189)	1,35	0,06	< 1,88	< 0,08
WHO-PCB-TEQ excl. LOQ [a]	0,213	0,009	0,181	0,007
WHO-PCB-TEQ incl. LOQ [b]	0,232	0,009	0,203	0,008
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,182	0,007	0,164	0,007
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,237	0,01	0,229	0,009
Recovery Rates	%		%	
13C12-TetraCB(#81)	67,2		83,6	
13C12-TetraCB(#77)	61,5		74,0	
13C12-PentaCB(#123)	72,1		82,3	
13C12-PentaCB(#118)	75,9		87,7	
13C12-PentaCB(#114)	76,7		88,6	
13C12-PentaCB(#105)	66,5		81,6	
13C12-PentaCB(#126)	60,6		78,3	
13C12-HexaCB(#167)	70,7		82,9	
13C12-HexaCB(#156)	71,2		82,9	
13C12-HexaCB(#157)	69,1		81,1	
13C12-HexaCB(#169)	61,5		78,3	
13C12-HeptaCB(#189)	73,7		81,8	

< : 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. 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 09G6269.35		B15 09G6269.36	
Fat content [%]	3,7		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
WHO - PCB				
TetraCB(#77)	< 2,19	< 0,08	3,18	0,13
TetraCB(#81)	< 0,50	< 0,02	< 0,45	< 0,02
PentaCB(#105)	22,7	0,84	37,8	1,50
PentaCB(#114)	1,50	0,06	1,99	0,08
PentaCB(#118)	100	3,70	148	5,88
PentaCB(#123)	< 0,80	< 0,03	0,72	0,03
PentaCB(#126)	0,84	0,03	1,01	0,04
HexaCB(#156)	18,3	0,68	21,5	0,85
HexaCB(#157)	2,19	0,08	2,51	0,1
HexaCB(#167)	5,44	0,20	6,59	0,26
HexaCB(#169)	< 2,39	< 0,09	< 2,15	< 0,09
HeptaCB(#189)	< 1,0	< 0,04	1,0	0,04
WHO-PCB-TEQ excl. LOQ [a]	0,107	0,004	0,133	0,005
WHO-PCB-TEQ incl. LOQ [b]	0,131	0,005	0,155	0,006
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,088	0,003	0,108	0,004
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,160	0,006	0,172	0,007
Recovery Rates	%		%	
13C12-TetraCB(#81)	83,5		98,1	
13C12-TetraCB(#77)	76,0		93,3	
13C12-PentaCB(#123)	83,1		90,2	
13C12-PentaCB(#118)	81,1		84,9	
13C12-PentaCB(#114)	84,1		79,7	
13C12-PentaCB(#105)	77,3		87,9	
13C12-PentaCB(#126)	73,1		85,6	
13C12-HexaCB(#167)	80,0		86,5	
13C12-HexaCB(#156)	76,0		89,1	
13C12-HexaCB(#157)	74,6		89,7	
13C12-HexaCB(#169)	70,2		83,5	
13C12-HeptaCB(#189)	70,8		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. 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 09G6269.37	
Fat content [%]	3,8	
Unit	pg/g fat-weight	pg/g fresh-weight
WHO - PCB		
TetraCB(#77)	2,72	0,10
TetraCB(#81)	< 0,50	< 0,02
PentaCB(#105)	23,2	0,87
PentaCB(#114)	1,51	0,06
PentaCB(#118)	104	3,90
PentaCB(#123)	1,68	0,06
PentaCB(#126)	0,78	0,03
HexaCB(#156)	11,2	0,42
HexaCB(#157)	1,86	0,07
HexaCB(#167)	2,56	0,1
HexaCB(#169)	< 2,38	< 0,09
HeptaCB(#189)	< 0,99	< 0,04
WHO-PCB-TEQ excl. LOQ [a]	0,098	0,004
WHO-PCB-TEQ incl. LOQ [b]	0,122	0,005
WHO(2005)-PCB-TEQ excl. LOQ [a]	0,082	0,003
WHO(2005)-PCB-TEQ incl. LOQ [b]	0,154	0,006
Recovery Rates	**%**	
13C12-TetraCB(#81)	102	
13C12-TetraCB(#77)	101	
13C12-PentaCB(#123)	100	
13C12-PentaCB(#118)	98,6	
13C12-PentaCB(#114)	100	
13C12-PentaCB(#105)	98,2	
13C12-PentaCB(#126)	99,1	
13C12-HexaCB(#167)	96,5	
13C12-HexaCB(#156)	94,5	
13C12-HexaCB(#157)	94,0	
13C12-HexaCB(#169)	89,8	
13C12-HeptaCB(#189)	90,3	

< : 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)

November 06, 2009

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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Environmental Protection Agency (EPA)
Dr. Colman Concannon
McCumiskey House
Richview
Clonskeagh Road
Dublin 14

Ireland

November 06, 2009

Our ref.: 61243-008 P01-079-Kr
Please include in all correspondences

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

Analysis of 37 cow's milk samples for PCDF/Ds and PCBs;
Your order PO 024257 dated July 22, 2009

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