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Analytical Report Nr. AR-15-ZV-001411-02 / 893-2015-00001476

(*this report cancels and replaces the previous one, numbered AR-15-ZV-001411-01/893-2015-00001476 dated 12/12/2015 which must be destroyed)



Eurofins Turkey Gıda Analizler Ltd. Sti.

For the attention of Tahir Durmus

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Our reference : 893-2015-00001476/ AR-15-ZV-001411-02 Type : EX
Client reference : 201502724
Sample described as : Numune ismi : By pass yagi / Uretim tarihi: 25.11.2015 // Numune gonderen Firma: KRV Yag ve Kemik San. Tic. A.S. // A&T Lab
Sample reception date : 09/12/2015 Analysis starting date : 09/12/2015
Analyses requested : ZV00G: Dioxins and Furans PCDD/F (17 congeners)
Sample integrity Undamaged Quantity received ca. 790 g

Dioxins and PCBs details			Results (uncertainty)
ZV00G	ZV	Dioxins and Furans PCDD/F (17 congeners)	Method : Conform EC 589/2014 (food) and EC 709/2014 (feed) (GC-MS/MS)
(Q)	2,3,7,8-TetraCDD		0.0220 pg/g wet weight
(Q)	1,2,3,7,8-PentaCDD		0.0647 pg/g wet weight
(Q)	1,2,3,4,7,8-HexaCDD		0.0514 pg/g wet weight
(Q)	1,2,3,6,7,8-HexaCDD		0.132 pg/g wet weight
(Q)	1,2,3,7,8,9-HexaCDD		0.0663 pg/g wet weight
(Q)	1,2,3,4,6,7,8-HeptaCDD		0.299 pg/g wet weight
(Q)	OctaCDD		1.30 pg/g wet weight
(Q)	2,3,7,8-TetraCDF		0.0382 pg/g wet weight
(Q)	1,2,3,7,8-PentaCDF		0.0275 pg/g wet weight
(Q)	2,3,4,7,8-PentaCDF		0.227 pg/g wet weight
(Q)	1,2,3,4,7,8-HexaCDF		0.244 pg/g wet weight
(Q)	1,2,3,6,7,8-HexaCDF		0.174 pg/g wet weight
(Q)	1,2,3,7,8,9-HexaCDF		< 0.0135 pg/g wet weight
(Q)	2,3,4,6,7,8-HexaCDF		0.166 pg/g wet weight
(Q)	1,2,3,4,6,7,8-HeptaCDF		0.178 pg/g wet weight
(Q)	1,2,3,4,7,8,9-HeptaCDF		0.0532 pg/g wet weight
(Q)	OctaCDF		0.329 pg/g wet weight

Dioxins and PCBs sum TEQ			Results (uncertainty)
ZV00G	ZV	Dioxins and Furans PCDD/F (17 congeners)	Method : Conform EC 589/2014 (food) and EC 709/2014 (feed) (GC-MS/MS)
(Q)	WHO(2005)-PCDD/F TEQ (lower-bound)		0.249 (± 0.039) pg/g wet weight
(Q)	WHO(2005)-PCDD/F TEQ (medium-bound)		0.249 (± 0.039) pg/g wet weight
(Q)	WHO(2005)-PCDD/F TEQ (upper-bound)		0.250 (± 0.039) pg/g wet weight

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CONCLUSION

Concluding from the performed analyses taking into account measurement uncertainty, and comparing with industry standards, scientific literature, and values at our disposal:

The sum of dioxins and furans (WHO-PCDD/F-TEQ), stated in pg/g fat, is below the maximum limit accepted for fat from bovine animals and sheep, including Numune ismi : By pass yagi / Uretim tarihi: 25.11.2015 // Numune gönderen Firma: KRV Yag ve Kemik Sa (2.5 pg/g fat).

It's assumed that the sample has a fat percentage of 100 percent.

Method used for extraction of PCDD/PCDDFs and PCB: Soxhlet extraction.

Measurement uncertainties: sum WHO-PCDD/F: 16 %, sum of WHO-PCB: 20 %, sum WHO-PCDD/F + WHO-PCB: 25 % and ICES-6/non-dioxin-like PCB: 16 %.

Legislation for PCB, dioxins and furans: Regulation 589/2014, 1067/2013, 1259/2011 (Food), 709/2014, 278/2012 and 277/2012 (Feed). Recommendation 663/2014 (Food).

SIGNATURE

Paul Roozen
Analyst-1

Guido De Clercq
Lab Operational Manager



Report electronically validated by Paul Roozen

EXPLANATORY NOTE

This certificate may only be reproduced complete. The results are only valid for the sample.

The uncertainty of measurement for the applied methods of analysis are retrievable from the ASM department.

Opinions and interpretations in this certificate are outside the scope of accreditation.

The samples will be stored until 91 days after the date of reception.

The analyses that state -M after the reference method should be interpreted as equal to the aforementioned reference method.

The tests identified by the two letters code ZV are performed in laboratory Laboratorium Zeeuws-Vlaanderen BV. The symbol (Q) identifies the tests under accreditation NEN EN ISO/IEC 17025:2005 RvA L201.