



Edition 1

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DIOXIN CAPABILITIES IN FOOD AND FEED

DIOXIN CONTAMINATION IN PIG AND POULTRY FEED

Rapid Alert System for Food and Feed (RASFF) alert number 2010.1771: pig and poultry feed in Germany has been found to contain dioxins above the European legal limits.

ABOUT DIOXINS

Dioxins and polychlorinated biphenyls (PCBs) are chemicals that get into our food from the environment. They have no immediate effect on our health but can cause problems if they are absorbed into our bodies at high levels for long periods.

Foods high in animal fat, such as milk, meat, fish and eggs (and foods produced with them) are the main source of dioxins and PCBs although all foods contains at least low levels of these chemicals. The levels of dioxins and PCBs in any one individual's diet will vary depending on the amounts and types of foods they eat.

The risk to health comes from eating food with high levels of dioxins and PCBs over a long period. They have been shown to cause a wide range of effects in certain animals, including cancer and damage to the immune and reproductive systems, although it appears that people may be less sensitive.



ANALYSES OF DIOXINS AND DIOXIN-LIKE PCBS AT ALS

Legislation compliance:

ALS offers ideal conditions fulfilling Commission Regulation 1881/2006 amended and 2002/70/EC amended for food/feed quality monitoring. The European Union, in its Commission Directive 2006/13/EC for animal feeds, Commission Regulation 199/2006 for food and Recommendation 2006/88/EC for feed and food, sets maximum acceptable levels and action levels.

Ultra-trace analyses of polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/F), including total congener 2,3,7,8 substituted isomers and dioxin-like PCBs are provided by HRMS according to international standards. All dioxins testing procedures are validated and accredited according to international standard ISO/IEC 17025.

Right Focus - Methodologies

ALS gives you reliable data that you need for establishing your compliance with Directives and Regulations set forth by the European Union, which regulates PCDD/F and dioxin like PCBs in human foodstuffs.

ALS follows USEPA methods to provide determination of adequately prepared, extracted and purified sample extracts by High Resolution Gas Chromatography-High Resolution Mass Spectrometry:

- US EPA 1613
- US EPA 8290
- US EPA 1668

Right Instrumentation at ALS

- HRMS Finnigan MAT 95 XP / double GC 6890N
- HRMS Thermo Electron DFS / Trace GC Ultra

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SERVICES FOR DIOXINS AND COPLANAR PCBS

Food	Upperbound WHO-TEQ for PCDD/F	Upperbound WHO-TEQ for dioxin-like PCBs	Minimum amount required
Meat and meat products of <ul style="list-style-type: none"> • Ruminants (bovine animals, sheep) • Poultry and farmed game • Pigs • Liver and derived products 	0,6 pg /g fat 0,4 pg /g fat 0,2 pg /g fat 1,2 pg /g fat	0,3 pg /g fat 0,4 pg /g fat 0,1 pg /g fat 1,2 pg /g fat	100 grams 300 grams 100 grams 200 grams
Fish and fishery products	0,8 pg /g fresh weight	1,6 pg /g fresh weight	25 grams
Eel muscle meat (<i>Anguilla anguilla</i>) and products thereof	0,6 pg /g fat	0,6 pg /g fat	300 ml (full fat milk)
Milk and milk products, including butter fat	0,8 pg /g fresh weight	0,8 pg /g fresh weight	25 grams
Hen eggs and egg products	0,6 pg /g fat	0,6 pg /g fat	100 grams (4 pieces)
Oils and fats <ul style="list-style-type: none"> • Animal fat: <ul style="list-style-type: none"> • Ruminants • Poultry and farmed game • Pigs • Mixed animal fats • Vegetable oil and fats • Marine oil 	0,6 pg /g fat 0,4 pg /g fat 0,2 pg /g fat 0,4 pg /g fat 0,15 pg /g fat 0,4 pg /g fat	0,3 pg /g fat 0,4 pg /g fat 0,1 pg /g fat 0,2 pg /g fat 0,15 pg /g fat 1,6 pg /g fat	15 grams 25 grams 50 grams 25 grams 30 grams 25 grams
Fruits, vegetables and cereals	0,08 pg/g product	0,04 pg/g product	100 grams
Fish liver and derived products thereof with the exception of marine oils	2,5 pg/g wet weight	2,5 pg/g wet weight	20 grams

CONTACT US FOR MORE INFORMATION AND TO REQUEST A QUOTE



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