Technical Specifications

# TS1.5 - Specific feed safety limits

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GMP+ International

gmpplus.org

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# 1. Introduction / Scope of this document

In the different GMP+ documents there are many references made to specific feed safety limits. In this document you will find an overview. These standards were created in consultation with the relevant parties in the animal production chain.

**DISCLAIMER**: GMP+ International has compiled this list in order to inform interested parties with respect to the standards. The list will be regularly updated. GMP+ International is not liable for any errors in this list.

# 2. Specific feed safety limits

There are two clear limits in GMP+ product standards if undesirable substances are found in any type of feed: the **action limit**, and the **rejection limit**. These limits refer to what it means for the GMP+ certified company if specified levels of undesirable substances are found in feed. The action limit for undesirable substances is lower than the rejection limit.

As is stated in the various GMP+ documents, the certified company must ensure that deviations (in the product or process) from the requirements in this document are recorded and controlled in order to prevent unintentional use or delivery of the product

The product standards for the maximum level of undesirable substances is calculated proportionately from the product standard for the individual component for mixes of feed materials (semi-manufactured product) which are marketed as such.

**Action limit**
If undesirable substances are found in any type of feed at levels above the **action limit** — and below the **rejection limit** — this means you must take action.

If the **action limit** is exceeded — then the GMP+ certified company must investigate the source of the contamination, and take measures to remove or limit the source of the contamination (see R 1.0 Feed Safety Management Systems Requirements, § 8.7).

This limit has been agreed upon in consultation with the sector, the supplier, or the customer.

**Rejection limit**
If undesirable substances are found in feed at levels above the **rejection limit** then the product is not suitable for use as a feed material or feed (see R 1.0 Feed Safety Management Systems Requirements, § 8.7).

This limit has been agreed upon in consultation with the sector, the supplier, or the customer.

# Microbiological hazards

| Code | Contaminant | Product | Action limit [1] | Rejection limit [1] | Supplementary requirements |
|---|---|---|---|---|---|
| **Microbiological: Other undesirable substances and products** | | | | | |
| M1 | Antibacterial inhibition | Feed materials | - | < 15 mm | According to the 5-plate test MB003, derived from EG-4-plate test, product basis (RIVM report no. 206; Archiv fur Lebensmittel-hygiene 31 (1981) page 97-140. |
| | | Wet mixes | | | |

*1. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [1] | Rejection limit [1] | Supplementary requirements |
|---|---|---|---|---|---|
| **Microbiological** | | | | | |
| M3 | Enterobacteriaceae | Animal by-products that are placed on the market as feed materials. | | 300 CFU/g | n = 5, c = 2, m = 10, M = 300 in 1 g [2]<br><br>These standards apply to:<br>samples of the final products taken during or on withdrawal from storage at the processing plant.<br>This microbiological standard shall not apply to rendered fats and fish oil from the processing of animal by-products, when the processed animal protein, which is obtained during the same processing, is subject to sampling to ensure compliance with those standards.<br><br>Further, for imports from outside the European Union (EU) specific requirements may apply. See Regulation (EU) 142/2011 for more information. |
| | | Processed petfood<br><br>- Dogchews and processed petfood, with the exception of canned petfood<br><br>- Canned petfood * | | 300 CFU/g | n = 5, c = 2, m = 10, M = 300 in 1 g [2]<br><br>Samples are taken during production and/or during storage (before dispatch).<br><br>*Canned petfood which has been subjected to heat treatment with a Fc value of at least 3<br><br>Further, for imports from outside the European Union (EU) specific requirements may apply. See Regulation (EU) 142/2011 for more information. |

| | | | | | |
|---|---|---|---|---|---|
| | | Raw petfood | 5.000 CFU/g | | The process of production of raw petfood shall meet the following 'process hygiene criterion' **:<br>n = 5, c = 2, m = 500 in 1 g , M =5.000 in 1 g [2]<br><br>Samples are taken during production and/or during storage (before dispatch).<br>Process hygiene criterion' means a criterion indicating the acceptable functioning of the production process. Such a criterion is not applicable to products placed on the market. It sets an indicative contamination value above which corrective actions are required in order to maintain the hygiene of the process in compliance with general requirements for the safety of feed.<br>See Regulation 142/2011, annex XIII, chapter 2, point 6 for more details (e.g. control measures, notification to the competent authority, etc.) on this "process hygiene criterion".<br><br>Further, for imports from outside the European Union (EU) specific requirements may apply. See Regulation (EU) 142/2011 for more information. |

*1. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*2. n = number of samples to be tested; m = threshold value for the number of bacteria; the result shall be considered satisfactory if the number of bacteria in all samples does not exceed m; M = maximum value for the number of bacteria; the result shall be considered unsatisfactory if the number of bacteria in one or more samples is M or more; and c = number of samples the bacterial count of which may be between m and M, the sample shall still be considered acceptable if the bacterial count of the other samples is m or less.*

| Code | Contaminant | Product | Action limit [1] | Rejection limit [1] | Supplementary requirements |
|---|---|---|---|---|---|
| **Microbiological: Microbiological contamination** | | | | | |
| M4a | Salmonella | Consumption chick feed: end products and feed materials for:<br><br>- Top breeding consumption chicks<br><br>- Breeding increase consumption chicks<br><br>- Increase consumption chicks<br><br>- Consumption chicks | - | $0^{+}$%<br>[3] (approaching 0%) | |
| | | Laying poultry feed: end products and feed materials for:<br><br>- Top breeding laying poultry<br><br>- Raising increase laying poultry<br><br>- Increase laying poultry | - | $0^{+}$%<br>[3] (approaching 0%) | |
| | | - Laying-hens and breeding hens | 1% | $0^{+}$% [3] (approaching 0%) for S. enteritidis and S. typhimurium | |

| | | | | | |
|---|---|---|---|---|---|
| | | Turkey feed: end products and feed materials for:<br><br>- Raising increase turkeys<br><br>- Increase turkeys<br><br>- Consumption turkeys | - | 0+%<br>[3] (approaching 0%) | |
| | | Other animal feeds, feed materials and wet mixes intended for livestock farms (except for poultry feeds). | - | Absent in 25 gr | |
| | | From animal by-products derived products with the exception of canned petfood | - | Absent in 25 gr | n = 5, c = 0, m = 0, M = 0 [2] |
| | | From animal by-products derived canned petfood | | - | Canned petfood which has been subjected to heat treatment with a Fc value of at least 3 |
| M4b | Salmonella preservation determined through pH | Feed materials for delivery to livestock farms; | | Maximum pH for guarantee: | If preservation can be achieved at a higher pH then this should be supported with data.<br><br>These norms do not apply if the products are supplied at a temperature of at least 60°C and the supplier is demonstrably informed of the storage conditions.<br><br>The absence of Salmonella can also be shown in heat-treated wet mixes and feed materials (<13% moisture) through compliance with the norms for Enterobacteriaceae. |
| | | Wet mixes for delivery to livestock farmers on the basis of: | | | |
| | | - Spontaneous lactic acid fermentation | - | 4.5 | |
| | | - Add organic acids | - | 4 | |
| | | - Add inorganic acids | - | 3,5 | |

*1. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*2. n = number of samples to be tested; m = threshold value for the number of bacteria; the result shall be considered satisfactory if the number of bacteria in all samples does not exceed m; M = maximum value for the number of bacteria; the result shall be considered unsatisfactory if the number of bacteria in one or more samples is M or more; and c = number of samples the bacterial count of which may be between m and M, the sample shall still be considered acceptable if the bacterial count of the other samples is m or less.*

*3. Explanation of $0^+$: this norm does not apply to each individual sample. In a particular period of time the Salmonella incidence at company level should approach 0% (= $0^+$).*

| Code | Contaminant | Product | Action limit [1] | Rejection limit [1] | Supplementary requirements |
|---|---|---|---|---|---|
| **Microbiological: Microbiological contamination** | | | | | |
| M5a | Moulds | Feed materials | $10^6$ CFU/g | | In the *TNO report "Norm for fungal load in animal feed (S9.75)"* you can read the foundation of the new standards and the suggestions for analysis methods. |
| M5b | Yeast | Feed materials ≤ 12% moisture content or aw-value ≤ 0,95 | $10^6$ CFU/g | | |
| | | Feed materials ≥ 12% moisture content or aw-value ≥ 0,95 | - | | |

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*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

# Chemical hazards

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C1 | Aflatoxin B1 | Feed materials intended for (direct) delivery to dairy farmers | - | 0,005 mg/kg | |
| | | Feed materials | - | 0,02 mg/kg | |
| | | Complementary and complete feed with the exception of: | - | 0,01 mg/kg | |
| | | • compound feed for dairy cattle and calves, dairy sheep and lambs, dairy goats and kids, piglets and young poultry animals. | - | 0,005 mg/kg | |
| | | • compound feed for cattle (except dairy cattle and calves), sheep (except dairy sheep and lambs), goats (except dairy goats and kids), pigs (except piglets) and poultry (except young animals). | - | 0,02 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C2 | Aldrin<br>Dieldrin<br>(Singly or combined expressed as dieldrin) | Feed materials and compound feed, with the exception of: | - | 0,01 mg/kg | Maximum level for aldrin and dieldrin, singly or combined, expressed as dieldrin. |
| | | • fats and oils, | - | 0,1 mg/kg | |
| | | • compound feed for fish | - | 0,2 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Heavy metals** | | | | | |
| C3 | Arsenic [6] | Feed materials, with the exception of: | - | 2 mg/kg | |
| | | • meal made from grass, from dried lucerne and from dried clover, and dried sugar beet pulp and dried molasses sugar beet pulp; | - | 4 mg/kg | |
| | | • palm kernel expeller; | - | 4 mg/kg [7] | |
| | | • peat; leonardite; | - | 5 mg/kg [7] | |
| | | • phosphates and calcareous marine algae; | - | 10 mg/kg | |
| | | • calcium carbonate; calcium and magnesium carbonate [8]; calcareous marine shells; | - | 15 mg/kg | |
| | | • magnesium oxide and magnesium carbonate; | - | 20 mg/kg | |
| | | • fish, other aquatic animals and products derived thereof; | - | 25 mg/kg [7] | |
| | | • seaweed meal and feed materials derived from seaweed. | - | 40 mg/kg [7] | |
| | | Iron particles used as tracer | - | 50 mg/kg | |
| | | Feed additives belonging to the functional group of compounds of trace elements except: | - | 30 mg/kg | |
| | | • cupric sulphate pentahydrate; cupric carbonate; dicopper; chloride trihydroxide; ferrous carbonate; dimanganese chloride trihydroxide; | - | 50 mg/kg | |

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| | | • zinc oxide, manganous oxide and cupric oxide. | - | 100 mg/kg | |
| | | Complete feed, with the exception of: | - | 2 mg/kg | |
| | | • complete feed for fish and fur animals; | - | 10 mg/kg [7] | |
| | | • complete feed for pet animals containing fish, other aquatic animals and products derived thereof and/or seaweed meal and feed materials derived from seaweed. | - | 10 mg/kg [7] | |
| | | Complementary feed, with the exception of: | - | 4 mg/kg | |
| | | • mineral feed; | - | 12 mg/kg | |
| | | • complementary feed for pet animals containing fish, other aquatic animals and products derived thereof and/or seaweed meal and feed materials derived from seaweed; | - | 10 mg/kg [7] | |
| | | • long-term supply formulations of feed for particular nutritional purposes with a concentration of trace elements higher than 100 times the established maximum content in complete feed. | - | 30 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

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*6. The maximum levels refer to the total level of arsenic.*

*7. At the request of the competent authorities the responsible operator must carry out an analysis to show that the level of inorganic arsenic is lower than 2 ppm. This analysis is especially important for the Hizikia fusiforme seaweed*

*8. Calcium and magnesium carbonate refers to the natural mixture of calcium carbonate and magnesium carbonate as described in the European Catalogue of feed materials.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Other undesirable substances and products** | | | | | |
| C4 | Hydrocyanic acid | Feed materials, with the exception of: | - | 50 mg/kg | |
| | | • linseed; | - | 250 mg/kg | |
| | | • linseed cakes; | - | 350 mg/kg | |
| | | • manioc products and almond cake. | - | 100 mg/kg | |
| | | Complete feed, with the exception of: | - | 50 mg/kg | |
| | | • complete feed for young chickens (< 6 weeks). | - | 10 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Heavy metals** | | | | | |
| C6 | Cadmium | Feed materials of vegetable origin | - | 1 mg/kg | |
| | | Feed materials of animal origin | - | 2 mg/kg | |
| | | Feed materials of mineral origin, with the exception of: | - | 2 mg/kg | |
| | | • phosphates | - | 10 mg/kg | |
| | | Feed additives, belonging to the functional group "Compounds of trace elements", with the exception of: | - | 10 mg/kg | |
| | | • cupric oxide, manganous oxide, zinc oxide and manganous sulphate-monohydrate. | - | 30 mg/kg | |
| | | Feed additives belonging to the functional groups of binders and anti-caking agents | - | 2 mg/kg | |
| | | Premixtures | - | 15 mg/kg [9] | |
| | | Complementary feed with the exception of: | - | 0,5 mg/kg | |
| | | • Mineral feed | - | 5 mg/kg | |
| | | • containing < 7% phosphorus [10] | - | 0,75 mg/kg per 1% phosphorus [10], with a maximum of 7,5 mg/kg | |
| | | • containing ≥ 7% phosphorus [10] | - | 2 mg/kg | |

| | | | | | |
|---|---|---|---|---|---|
| | | • Long-term supply formulations of feed for particular nutritional purposes with a concentration of trace elements higher than 100 times the established maximum content in complete feed; | - | 15 mg/kg | |
| | | Complete feed with the exception of: | - | 0,5 mg/kg | |
| | | • complete feed for cattle (except calves), sheep (except lambs) goats (except kids) and fish; | - | 1 mg/kg | |
| | | • complete feed for pet animals. | - | 2 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*9. The maximum level established for premixtures takes into account the additives with the highest level of lead and cadmium and not the sensitivity of the different animal species to lead and cadmium. As provided in Article 16 of Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition (OJ L 268, 18.10.2003, p. 29), in order to protect animal and public health, it is the responsibility of the producer of premixtures to ensure that, in addition to compliance with the maximum levels for premixtures, the instructions for use on the premixture are in accordance with the maximum levels for complementary and complete feed.*

*10. The % of phosphorus is relative to a feed with a moisture content of 12 %.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Salts** | | | | | |
| C7 | Chloride | • Feed materials for delivery to livestock farms, and;<br>• Wet mixes for delivery to livestock farmers | 10 g/kg (dry matter) | | If the action limit is exceeded then a warning or processing advice must be ***demonstrably communicated*** to the customer.<br>Supply of additional water to the animals is also important to avoid health problems. More recommendations in the event of excess of the action limit can be found in *Support document (S9.72) Salts in rations with wet feeds for fattening pigs and sows* |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C8 | Camphechlor (toxaphene) – sum of the indicators CHB 26, 50 and 62 [11] | Fish, other aquatic animals and products thereof with the exception of fish oil: | - | 0,02 mg/kg | |
| | | • fish oil | - | 0,2 mg/kg | |
| | | Complete feed for fish | - | 0,05 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

*11. Numbering system according to Parlar, prefixed by either CHB or "Parlar":*

*- CHB 26: 2-endo,3-exo,5-endo,6-exo,8,8,10,10-octochlorobornane,*

*- CHB 50: 2-endo,3-exo,5-endo,6-exo,8,8,9,10,10-nonachlorobornane,*

*- CHB 62: 2,2,5,5,8,9,9,10,10-nonachlorobornane.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C9 | Chlordane (sum of cis- and transisomers and of oxychlordane expressed chlordane) | Feed materials and compound feed with the exception of: | - | 0,02 mg/kg | |
| | | • fats and oils | - | 0,05 mg/kg | |

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*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C11 | DDT (sum of DDT-, DDD- (or TDE-) and DDE-isomers, expressed as DDT) | Feed materials and compound feed with the exception of: | - | 0,05 mg/kg | |
| | | • fats and oils | - | 0,5 mg/kg | |

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*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Other undesirable substances and products** | | | | | |
| C12 | Prohibited Animal proteins (Restricted animal proteins) | Animal feeds for productive livestock | - | 0 | See TS 1.4 Forbidden Products and Fuels |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit 4 + 12 | Rejection limit 4 + 12 | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Toxic substances** | | | | | |
| C13a | Dioxin (sum of polychlorinated dibenzo-para-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) expressed in World Health Organisation (WHO) toxic equivalents, using the WHO-TEFs (toxic equivalency factors, 2005)) | Feed materials of plant origin with the exception of vegetable oils and their by-products | 0,5 ng WHO-PCDD/F-TEQ/kg | 0,75 ng WHO-PCDD/F-TEQ/kg | In the event of exceeding the action limit: Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination. |
| | | Vegetable oils and their by-products | 0,5 ng WHO-PCDD/F-TEQ/kg | 0,75 ng WHO-PCDD/F-TEQ/kg | |
| | | Feed materials of mineral origin | 0,5 ng WHO-PCDD/F-TEQ/kg | 0,75 ng WHO-PCDD/F-TEQ/kg | |
| | | Feed materials of animal origin: | | | |
| | | • Animal fat including milk fat and egg fat | 0,75 ng WHO-PCDD/F-TEQ/kg | 1,50 ng WHO-PCDD/F-TEQ/kg | |
| | | • Other land animal products including milk and milk products and eggs and egg products. | 0,5 ng WHO-PCDD/F-TEQ/kg | 0,75 ng WHO-PCDD/F-TEQ/kg | |
| | | Fish oil | 4,0 ng WHO-PCDD/F-TEQ/kg | 5,0 ng WHO-PCDD/F-TEQ/kg | In the event of exceeding the action limit: In many cases it might not be necessary to perform an investigation into the source of contamination as the background level in some areas is close or above the action level. However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species, etc., shall be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in the materials for animal nutrition. |
| | | Fish, other aquatic animals and products derived thereof, with the exception of fish oil and hydrolysed fish protein containing more than 20% fat[6] and crustacean meal. | 0,75 ng WHO-PCDD/F-TEQ/kg | 1,25 ng WHO-PCDD/F-TEQ/kg | |
| | | Hydrolysed fish protein containing more than 20% fat; crustacean meal. | 1,25 ng WHO-PCDD/F-TEQ/kg | 1,75 ng WHO-PCDD/F-TEQ/kg | |
| | | Feed additives belonging to the functional groups of binders and anti-caking agents [13] | 0,5 ng WHO-PCDD/F-TEQ/kg | 0,75 ng WHO-PCDD/F-TEQ/kg | In the event of exceeding the action limit: Identification of source of contamination. |

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|---|---|---|---|---|---|
| | | Feed additives belonging to the functional group of compounds of trace elements. | 0,5 ng WHO-PCDD/F-TEQ/kg | 1,0 ng WHO-PCDD/F-TEQ/kg | Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination. |
| | | Premixtures | 0,5 ng WHO-PCDD/F-TEQ/kg | 1,0 ng WHO-PCDD/F-TEQ/kg | |
| | | Compound feeds with the exception of: | 0,5 ng WHO-PCDD/F-TEQ/kg | 0,75 ng WHO-PCDD/F-TEQ/kg | |
| | | • compound feed for pet animals and fish; | 1,25 ng WHO-PCDD/F-TEQ/kg | 1,75 ng WHO-PCDD/F-TEQ/kg | In the event of exceeding the action limit: In many cases it might not be necessary to perform an investigation into the source of contamination as the background level in some areas is close or above the action level. However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species, etc., shall be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in the materials for animal nutrition. |
| | | • compound feed for fur animals. | - | - | |
| C13b | Sum of dioxins and dioxin-like PCBs (sum of polychlorinated dibenzo- para-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs) and polychlorinated biphenyls (PCBs) expressed in World Health Organisation (WHO) toxic equivalents, using the WHO-TEFs (toxic equivalency factors, 2005)) | Feed materials of plant origin with the exception of vegetable oils and their by-products | - | 1,25 ng WHO-PCDD/F-PCB-TEQ/kg | |
| | | Vegetable oils and their by-products | - | 1,5 ng WHO-PCDD/F-PCB-TEQ/kg | |
| | | Feed materials of mineral origin | | 1,0 ng WHO-PCDD/F-PCB-TEQ/kg | |
| | | Feed materials of animal origin: | | | |

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| | | • Animal fat including milk fat and egg fat; | | 2,0 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | • Other land animal products including milk and milk products and eggs and egg products; | | 1.25 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | • Fish oil; | | 20,0 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | • Fish, other aquatic animals and products derived thereof with the exception of fish oil and fish protein hydrolysates containing more than 20% fat [14]; | | 4,0 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | • Fish protein hydrolysates containing more than 20% fat; | | 9,0 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | Feed additives belonging to the functional groups of binders and anti-caking agents [15] | | 1,5 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | Feed additives belonging to the functional group of compound of trace elements. | | 1,5 ng WHO-PCDD/F-PCB-TEQ/kg |
| | | Premixtures | | 1,5 ng WHO-PCDD/F-PCB-TEQ/kg |

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|---|---|---|---|---|---|
| | | Compound feed with the exception of: | | 1,5 ng WHO-PCDD/F-PCB-TEQ/kg | |
| | | • Compound feed for pet animals and fish; | | 5,0 ng WHO-PCDD/F-PCB-TEQ/kg | |
| | | • Compound feed for fur animals. | - | - | |
| C13c | Dioxin-like PCBs * (sum of polychlorinated biphenyls (PCBs) expressed in World Health Organisation (WHO) toxic equivalents, using the WHO- TEFs (toxic equivalency factors, 2005) | Feed materials of plant origin with the exception of vegetable oils and their by-products | 0,35 ng WHO-PCB-TEQ/kg | | In the event of exceeding the action limit: Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination. |
| | | Vegetable oils and their by-products | 0,5 ng WHO-PCB-TEQ/kg | | |
| | | Feed materials of mineral origin | 0,35 ng WHO-PCB-TEQ/kg | | |
| | | Feed materials of animal origin: | | | |
| | | • Animal fat including milk fat and egg fat; | 0,75 ng WHO-PCB-TEQ/kg | | |
| | | • Other land animal products including milk and milk products and eggs and egg products; | 0,35 ng WHO-PCB-TEQ/kg | | |
| | | • Fish oil; | 11,0 ng WHO-PCB-TEQ/kg | | In the event of exceeding the action limit: In many cases it might not be necessary to perform an investigation into the source of contamination as the background level in some areas is close or above the action level. However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species, etc., shall be recorded with a view to future measures to manage the presence of dioxins and |

| | | | | | |
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| | | • Fish, other aquatic animals and products derived thereof with the exception of fish oil and fish protein, hydrolysed, containing more than 20% fat [14] | 2,0 ng WHO-PCB-TEQ/kg | | dioxin-like compounds in the materials for animal nutrition. |
| | | • Fish protein, hydrolysed, containing more than 20% fat | 5,0 ng WHO-PCB-TEQ/kg | | |
| | | Feed additives belonging to the functional groups of binders and anti-caking | 0,5 ng WHO-PCB-TEQ/kg | | In the event of exceeding the action limit: Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination. |
| | | Feed additives belonging to the functional group of compounds of trace elements | 0,35 ng WHO-PCB-TEQ/kg | | |
| | | Premixtures | 0,35 ng WHO-PCB-TEQ/kg | | |
| | | Compound feed with the exception of: | 0,5 ng WHO-PCB-TEQ/kg | | |
| | | • Compound feed for pet animals and fish | 2,5 ng WHO-PCB-TEQ/kg | | In the event of exceeding the action limit: In many cases it might not be necessary to perform an investigation into the source of contamination as the background level in some areas is close or above the action level. However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species, etc., shall be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in the materials for animal nutrition. |
| | | • Compound feed for fur animals | | | |
| C13d | Non-dioxin-like PCBs | Feed materials of plant origin | | 10 µg/kg (ppb) | |

| | | | | | |
|---|---|---|---|---|---|
| | (sum of PCB 28, PCB 52, PCB 101, PCB 138, PCB 153 and PCB 180 (ICES – 6)) | Feed materials of mineral origin | | 10 µg/kg (ppb) | |
| | | Feed materials of animal origin: | | 10 µg/kg (ppb) | |
| | | • Animal fat, including milk fat and egg fat; | | 10 µg/kg (ppb) | |
| | | • Other land animal products including milk and milk products and eggs and egg products; | | 10 µg/kg (ppb) | |
| | | • Fish oil; | | 175 µg/kg (ppb) | |
| | | • Fish, other aquatic animals and products derived thereof with the exception of fish oil and fish protein, hydrolysed, containing more than 20 % fat [16] | | 30 µg/kg (ppb) | |
| | | • Fish protein, hydrolysed, containing more than 20 % fat | | 50 µg/kg (ppb) | |
| | | Feed additives belonging to the functional groups of binders and anti-caking agents [17] | | 10 µg/kg (ppb) | |
| | | Feed additives belonging to the functional group of compounds of trace elements | | 10 µg/kg (ppb) | |
| | | Premixture | | 10 µg/kg (ppb) | |
| | | Compound feed with the exception of: | | 10 µg/kg (ppb) | |
| | | • compound feed for pet animals and fish | | 40 µg/kg (ppb) | |
| | | • compound feed for fur animals | | - | |

* Table of TEF (= toxic equivalency factors) for dioxins, furans and dioxin-like PCBs: WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation (WHO) – International Programme on Chemical Safety (IPCS) expert meeting which was held in Geneva in June 2005 (Martin van den Berg et al., The 2005 World Health Organisation Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin- like Compounds. Toxicological Sciences 93(2), 223–241 (2006))

| **Congener** | **TEF value** | **Congener** | **TEF value** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| *Dibenzo-p-dioxins (PCDDs)* | | *Dioxin-like PCBs* | |
| 2,3,7,8-TCDD | 1 | *non-ortho-PCB's + mono-ortho-PCB's* | |
| 1,2,3,7,8-PeCDD | 1 | *Non-ortho-PCBs* | |
| 1,2,3,4,7,8-HxCDD | 0,1 | PCB 77 | 0,0001 |
| 1,2,3,6,7,8-HxCDD | 0,1 | PCB 81 | 0,0003 |
| 1,2,3,7,8, 9-HxCDD | 0,1 | PCB 126 | 0,1 |
| 1,2,3,4,6,7,8-HpCDD | 0,01 | PCB 169 | 0,03 |
| OCDD | 0,0003 | | |
| | | *Mono-ortho-PCBs* | |
| *Dibenzofuranes (PCDFs)* | | PCB 105 | 0,00003 |
| 2,3,7,8-TCDF | 0,1 | PCB 114 | 0,00003 |
| 1,2,3,7,8-PeCDF | 0,03 | PCB 118 | 0,00003 |
| 2,3,4,7,8-PeCDF | 0,3 | PCB 123 | 0,00003 |
| 1,2,3,4,7,8-HxCDF | 0,1 | PCB 156 | 0,00003 |
| 1,2,3,6,7,8-HxCDF | 0,1 | PCB 157 | 0,00003 |
| 1,2,3,7,8,9-HxCDF | 0,1 | PCB 167 | 0,00003 |
| 2,3,4,6,7,8-HxCDF | 0,1 | PCB 189 | 0,00003 |
| 1,2,3,4,6,7,8-HpCDF | 0,01 | | |
| 1,2,3,4,7,8,9-HpCDF | 0,01 | | |
| OCDF | 0,0003 | | |
| Abbreviations used: T= tetra; Pe= penta; Hx=hexa; Hp= hepta; O= octa; CDD= chlorodibenzodioxin; CDF= chlorodibenzofuran; CB= chlorobiphenyl | | | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*12. Upper-bound concentrations; upper-bound concentrations are calculated on the assumption that all values of the different congeners below the limit of quantification are equal to the limit of quantification.*
*13. The maximum level is also applicable to the feed additives belonging to the functional groups of substances for the control of radionuclide contamination and substances for reduction of the contamination of feed by mycotoxins which are also belonging to the functional groups of binders and anti-caking agents.*
*14. Fresh fish and other aquatic animals directly delivered and used without intermediate processing for the production of feed for fur animals are not subject to the maximum levels, while maximum levels of 3,5 ng WHO-PCDD/F-TEQ/kg product and 6,5 ng WHO-PCDD/F-PCB-TEQ/kg product are applicable to fresh fish and 20,0 ng WHO-PCDD/F-PCB-TEQ/kg product is applicable to fish liver used for the direct feeding of pet animals, zoo and circus animals or used as feed material for the production of pet food. The products or processed animal proteins produced from these animals (fur animals, pet animals, zoo and circus animals) cannot enter the food chain and cannot be fed to farmed animals which are kept, fattened or bred for the production of food.*
*15. The maximum level is also applicable to the feed additives belonging to the functional groups of substances for the control of radionuclide contamination and substances for reduction of the contamination of feed by mycotoxins which are also belonging to the functional groups of binders and anti-caking agents.*
*16. Fresh fish and other aquatic animals directly delivered and used without intermediate processing for the production of feed for fur animals are not subject to the maximum levels, while maximum levels of 75 µg/kg product are applicable to fresh fish and 200 µg/kg product are applicable to fish liver used for the direct feeding of pet animals, zoo and circus animals or used as feed material for the production of pet food. The products or processed animal proteins produced from these animals (fur animals, pet animals, zoo and circus animals) cannot enter the food chain and cannot be fed to farmed animals which are kept, fattened or bred for the production of food.*
*17. The maximum level is also applicable to the feed additives belonging to the functional groups of substances for the control of radionuclide contamination and substances for reduction of the contamination of feed by mycotoxins which are also belonging to the functional groups of binders and anti-caking agents*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C15 | DON (Deoxynivalenol) | Compound feed (on full ration basis) for: | | | - The European Commission has published "Recommendation 2006/576/EC" regarding the guidance values for this mycotoxin. GMP+ International has established other values to comply. |
| | | • Pigs | 0,8 mg/kg | 1 mg/kg | |
| | | • Cattle | 4 mg/kg | 5 mg/kg | |
| | | • Calves up to 4 months | 1,6 mg/kg | 2 mg/kg | |
| | | • Dairy cattle | 2,4 mg/kg | 3 mg/kg | |
| | | • Poultry | 3,2 mg/kg | 4 mg/kg | |
| | | Compound feed for lambs, kids and dogs | 2 mg/kg | | |
| | | Other compound feeds | 5 mg/kg | | |
| | | Feed material (supplied to the livestock farmer for immediate feeding) for [18]: | | | |
| | | • Pigs | 1 mg/kg | 5 mg/kg | |
| | | • Cattle | 5 mg/kg | 15 mg/kg | |
| | | • Calves up to 4 months | 2 mg/kg | 6 mg/kg | |
| | | • Dairy cattle | 3 mg/kg | 9 mg/kg | |
| | | • Poultry | 4 mg/kg | 12 mg/kg | |
| | | Feed materials for other purposes [18]: | | | |
| | | • Cereals and cereal products [19] with the exception of maize by-products | 8 mg/kg | | |
| | | • Maize by-products | 12 mg/kg | | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*18. The supplier provides information to the livestock farmer in the event of infringement of the action limit for the level of the undesirable substance and provides advice on processing the product in the daily ration*
*19. The term 'Cereals and cereal products' includes not only the feed materials listed under heading 1 'Cereal grains and products derived thereof' of the list of feed materials referred to in part C of the European Catalogue of feed materials but also other feed materials derived from cereals in particular cereal forages and roughages*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C16 | Endosulfan (sum of alfa and bèta-isomers and of endosulfan sulphate, expressed as endosulfan) | Feed materials and compound feed with the exception of: | - | 0,1 mg/kg | |
| | | • cotton seed and products derived from the processing thereof, except crude cotton seed oil; | - | 0,3 mg/kg | |
| | | • soybean and products derived from the processing thereof, except crude soybean oil; | - | 0,5 mg/kg | |
| | | • crude vegetable oil | - | 1,0 mg/kg | |
| | | • complete feed for fish except for *Salmonids* | - | 0,005 mg/kg | |
| | | • complete feed for *Salmonids* | - | 0,05 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C17 | Endrin (sum of endrin and deltaketo-endrin, expressed as endrin) | Feed materials and compound feed with the exception of: | - | 0,01 mg/kg | |
| | | • fats and oils | - | 0,05 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Salts** | | | | | |
| C19 | Fluorine [20] | Feed materials, with the exception of: | - | 150 mg/kg | |
| | | • Feed materials of animal origin except marine crustaceans such as marine krill; calcareous marine shells; | - | 500 mg/kg | |
| | | • marine crustaceans such as marine krill; | - | 3 000 mg/kg | |
| | | • phosphates; | - | 2 000 mg/kg | |
| | | • calcium carbonate; calcium and magnesium carbonate [21] | - | 350 mg/kg | |
| | | • magnesium oxide; | - | 600 mg/kg | |
| | | • calcareous marine algae. | - | 1 250 mg/kg | |
| | | Vermiculite (E 561) | - | 3 000 mg/kg | |
| | | Complementary feed: | | | |
| | | • containing ≤ 4% phosphorus [10]; | - | 500 mg/kg | |
| | | • containing > 4% phosphorus [10]. | - | 125 mg/kg per 1% phosphorus [10] | |
| | | Complete feed, with the exception of: | - | 150 mg/kg | |
| | | • complete feed for cattle, sheep and goats: | | | |
| | | ◦ in lactation; | - | 30 mg/kg | |
| | | ◦ others; | - | 50 mg/kg | |
| | | • complete feed for pigs; | - | 100 mg/kg | |

| | | | | | |
|---|---|---|---|---|---|
| | | • complete feed for poultry (except chicks) and fish; | - | 350 mg/kg | |
| | | • complete feed for chicks; | - | 250 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*10. The % of phosphorus is relative to a feed with a moisture content of 12 %.*

*20. The maximum levels refer to an analytical determination of fluorine where the extraction is done for 20 minutes at an ambient temperature with hydrochloric acid 1 N. Equivalent extraction procedures may be used where it can be demonstrated that the extraction procedure used has the same extraction efficiency*

*21. Calcium and magnesium carbonate refers to the natural mixture of calcium carbonate and magnesium carbonate as described in the European Catalogue of feed materials.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C20 | Heptachlor (sum of heptachlor and heptachlor epoxyd, expressed as heptachlor) | Feed materials and compound feed, with the exception of: | - | 0,01 mg/kg | |
| | | • fats and oils | - | 0,2 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C21 | Hexachlorobenzene (HCB) | Feed materials and compound feed, with the exception of: | - | 0,01 mg/kg | |
| | | • fats and oils | - | 0,2 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C22a | Hexachlorocyclohexane (HCH): | | | | |
| | • Alfa-isomer | Feed materials and compound feed, with the exception of: | - | 0,02 mg/kg | |
| | | • fats and oils | - | 0,2 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C22b | Hexachlorocyclohexane (HCH): | | | | |
| | • Beta-isomer | Compound feeds with the exception of: | - | 0,01 mg/kg | |
| | | • compound feed for dairy cattle | - | 0,005 mg/kg | |
| | | Feed materials, with the exception of: | - | 0,01 mg/kg | |
| | | • fats and oils | - | 0,1 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Crop protection agents (Pesticides which are not permitted in the EU) [5]** | | | | | |
| C22c | Hexachlorocyclohexane (HCH): | | | | |
| | • Gamma-isomer (lindane) | Feed materials and compound feed, with the exception of: | - | 0,2 mg/kg | |
| | | • fats and oils | - | 2,0 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*5. Pesticides which are not included in Directive 2002/32/EC, Annex I, Section IV should comply to Regulation (EC) no. 396/2005*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Salts** | | | | | |
| C23 | Potassium | • Feed materials for delivery to livestock farms, and; | 60 g/kg (dry matter) | - | If the action limit is exceeded then a warning or processing advice must be ***demonstrably communicated*** to the customer.<br><br>Supply of additional water to the animals is also important to avoid health problems. More recommendations in the event of excess of the action limit can be found in Support document: *S 9.72 Salts in rations with wet feed for fattening pigs and sows* |
| | | • Wet mixes for delivery to livestock farmers | | - | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Toxic substances** | | | | | |
| C24 | Mineral oil hydrocarbons (C10-C40) | Animal fat, with the exception of: | - | 400 mg/kg (on product basic) | |
| | | • crude fish oil | - | 3 000 mg/kg (on product basic) | |
| | | Vegetable oil and fat (with the exception of sunflower oil) | - | 400 mg/kg (on product basic) | |
| | | • sunflower oil | - | 1 000 mg/kg (on product basic) | |
| | | Vegetable fatty acids distillates/acid oils/fatty acids from splitting/stearin fraction and olein fraction (with the exception of Sunflower fatty acid distillates/acid oils/fatty acids from splitting): | - | 3 000 mg/kg (on product basic) | |
| | | • sunflower fatty acid distillates/acid oils/fatty acids from splitting | - | 1 000 mg/kg (on product basic) | |
| | | Palm oil | - | 25 mg/kg calculated as diesel oil | This norm applies if the hydrocarbons (calculated as diesel oil) are determined via the GC-MS method. If use is made of the GC-FID method, then the norm for vegetable oil applies |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Heavy metals** | | | | | |
| C26 | Mercury [22] | Feed materials, with the exception of: | - | 0,1 mg/kg | |
| | | • fish, other aquatic animals and products derived thereof intended for the production of compound feed for food producing animals; | - | 0,5 mg/kg | |
| | | • fish, other aquatic animals and products derived thereof, intended for the production of compound feed for dogs, cats, ornamental fish and fur animals; | - | 1,0 mg/kg [23] | |
| | | • fish, other aquatic animals and products derived thereof as canned wet feed material for direct feeding of dogs and cats; | - | 0,3 mg/kg | |
| | | • calcium carbonate; calcium and magnesium carbonate [8]. | - | 0,3 mg/kg | |
| | | Compound feed, with the exception of: | - | 0,1 mg/kg | |
| | | • mineral feed; | - | 0,2 mg/kg | |
| | | • compound feed for fish; | - | 0,2 mg/kg | |
| | | • compound feed for dogs, cats, ornamental fish and fur animals. | - | 0,3 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*8. Calcium and magnesium carbonate refers to the natural mixture of calcium carbonate and magnesium carbonate as described in the European Catalogue of feed materials.*

*22. The maximum levels refer to the total level of mercury.*

*23. The maximum level is applicable on wet weight basis.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Heavy metals** | | | | | |
| C27 | Lead [24] | Feed materials, with the exception of: | - | 10 mg/kg | |
| | | • forage [25]; | - | 30 mg/kg | |
| | | • phosphates; calcareous marine algae and calcareous marine shells; | - | 15 mg/kg | |
| | | • calcium carbonate; calcium and magnesium carbonate [8]; | - | 20 mg/kg | |
| | | • yeast. | - | 5 mg/kg | |
| | | Feed additives belonging to the functional group of compounds of trace elements, with the exception of: | - | 100 mg/kg | |
| | | • zinc oxide; | - | 400 mg/kg | |
| | | • manganous oxide, ferrous carbonate, cupric carbonate, copper (I) oxide. | - | 200 mg/kg | |
| | | Feed additives belonging to the functional group of binders and anti-caking agents, with the exception of: | - | 30 mg/kg | |
| | | • clinoptilolite of volcanic origin; natrolite-phonolite. | - | 60 mg/kg | |
| | | Premixtures [9] | - | 200 mg/kg | |
| | | Complementary feed, with the exception of: | - | 10 mg/kg | |
| | | • mineral feed; | - | 15 mg/kg | |

| | | | | | |
|---|---|---|---|---|---|
| | | • long-term supply formulations of feed for particular nutritional purposes with a concentration of trace elements higher than 100 times the established maximum content in complete feed. | - | 60 mg/kg | |
| | | Complete feed | - | 5 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*8. Calcium and magnesium carbonate refers to the natural mixture of calcium carbonate and magnesium carbonate as described in the European Catalogue of feed materials.*

*9. The maximum level established for premixtures takes into account the additives with the highest level of lead and cadmium and not the sensitivity of the different animal species to lead and cadmium. As provided in Article 16 of Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition (OJ L 268, 18.10.2003, p. 29), in order to protect animal and public health, it is the responsibility of the producer of premixtures to ensure that, in addition to compliance with the maximum levels for premixtures, the instructions for use on the premixture are in accordance with the maximum levels for complementary and complete feed.*

*24. for the determination of lead in kaolinitic clay and in feed containing kaolinitic clay, the maximum level refers to an analytical determination of lead, whereby extraction is performed in nitric acid (5 % w/w) for 30 minutes at boiling temperature. Equivalent extraction procedures can be applied for which it can be demonstrated that the used extraction procedure has an equal extraction efficiency*

*25. Green fodder includes products which are intended for feeding to animals such as hay, silage, fresh grass, etc.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C28 | Ergot (Claviceps purpurea) | Feed materials and compound feed containing unground cereals | - | 1 000 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Salts** | | | | | |
| C29 | Sodium | - Feed materials for delivery to livestock farms, and<br>- Wet mixes for delivery to livestock farmers. | 8 g/kg (dry matter) | - | If the action limit is exceeded then a warning or processing advice must be ***demonstrably communicated*** to the customer.<br><br>Supply of additional water to the animals is also important to avoid health problems. More recommendations in the event of excess of the action limit can be found in Support document: *S 9.72 Salts in rations with wet feed for fattening pigs and sows* |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Heavy metals** | | | | | |
| C30 | Nickel | Oils and fats from vegetable or animal origin | 20 mg / kg (on a fat basis) | 50 mg / kg (on a fat basis) | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Other undesirable substances and products** | | | | | |
| C31 | Nitrites | Feed materials, with the exception of: | - | 15 mg/kg (expressed in sodium nitrite) | |
| | | • fish meal; | - | 30 mg/kg (expressed in sodium nitrite) | |
| | | • silage; | - | - | |
| | | • products and by-products from sugar beet and sugarcane and from starch production and alcoholic drink production. | - | - | |
| | | Complete feed, with the exception of: | - | 15 mg/kg (expressed in sodium nitrite) | |
| | | • complete feed for dogs and cats with a moisture content exceeding 20 %. | - | - | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Harmful Botanical impurities** | | | | | |
| C32 | Weed seeds and unground and uncrushed fruits containing alkaloids, glucosides or other toxic substances separately or in combination including | Feed material and compound feed | - | 3 000 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Other undesirable substances and products** | | | | | |
| C33 | Insoluble impurities | Rendered fats from ruminants | - | 0,15% | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C34 | Ochratoxin A | Compound feed on full ration basis for: | | | - The European Commission has published recommendation 2006/576/EC regarding the guidance values for this mycotoxin. GMP+ International has established other values to comply. |
| | | • Sows and consumption pigs and piglets | 0,04 mg/kg | 0,05 mg/kg | |
| | | • Poultry | 0,16 mg/kg | 0,2 mg/kg | |
| | | Compound feed for cats and dogs | 0,01 mg/kg | | |
| | | Feed material (supplied to the livestock farmer for immediate feeding) for [18]: | | | |
| | | • Sows and pigs and piglets | 0,05 mg/kg | 0.15 mg/kg | |
| | | • Poultry | 0,2 mg/kg | 0,6 mg/kg | |
| | | Feed materials for other purposes: | | | |
| | | • Cereals and cereal products ([18 + 19]) | 0,25 mg/kg | | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*18. The supplier provides information to the livestock farmer in the event of infringement of the action limit for the level of the undesirable substance and provides advice on processing the product in the daily ration*
*19. The term 'Cereals and cereal products' includes not only the feed materials listed under heading 1 'Cereal grains and products derived thereof' of the list of feed materials referred to in part C of the European Catalogue of feed materials but also other feed materials derived from cereals in particular cereal forages and roughages*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Toxic substances** | | | | | |
| C35a | Polycyclic Aromatic Hydrocarbons (PAH4) | Oils and fats excluding palm(kernel)-, coconutoil and products derived thereof | 160 µg/kg (on fat basis) | 200 µg/kg (on fat basis) | PAH4=sum of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene and chrysene<br>See the Support documents:<br>- S9.73 *Elaboration of limit values for Polycyclic Aromatic Hydrocarbons in oil for feed based on the PAH4 methodology*<br>- S9.74 *Transfer of polycyclic Aromatic Hydrocarbons in oil for feed to edible food commodities* |
| | | Palm(kernel)-, coconutoil and and products derived thereof | 320 µg/kg (on fat basis) | 400 µg/kg (on fat basis) | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Antinutritional factors: Glucosides** | | | | | |
| C38 | Seeds and husks from Ricinus communis L., Croton tiglium L. and Abrus precatorius L. as well as their processed derivatives (in so far determinable by analytical microscopy), separately or in combination | Feed materials and compound feed. | - | 10 mg/kg [26] | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*26. Includes also seed husk fragments.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Salts** | | | | | |
| C39 | Sulphate | - Feed materials for delivery to livestock farms, and;<br>- Wet mixes for delivery to livestock farmers which are preserved with sulphuric acid and not for products which by nature are rich in sulphur. | 8 g/kg (dry matter) | | If the action limit is exceeded then a warning or processing advice must be ***demonstrably communicated*** to the customer.<br>Supply of additional water to the animals is also important to avoid health problems. More recommendations in the event of excess of the action limit can be found in Support document: *S9.72 Salts in rations with wet feed for fattening pigs and sows* |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Antinutritional factors: Alkaloids** | | | | | |
| C40 | Theobromine | Complete feed, with the exception of: | - | 300 mg/kg | |
| | | • complete feed for pigs; | - | 200 mg/kg | |
| | | • complete feed for dogs, rabbits, horses and fur animals. | - | 50 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Antinutritional factors: Glucosides** | | | | | |
| C41 | Vinyl thiooxazolidone (5-vinyloxazolidine-2-thione) | Complete feed for poultry with the exception of: | - | 1 000 mg/kg | |
| | | • complete feed for laying hens | - | 500 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Antinutritional factors: Glucosides** | | | | | |
| C42 | Volatile mustard oil | Feed materials, with the exception of: | - | 100 mg/kg (calculated as allylisothiocyanate) | |
| | | • Camelina seed and products derived thereof [27], products derived from mustard seed [27], rape seed and products derived thereof. | - | 4 000 mg/kg (calculated as allylisothiocyanate) | |
| | | Complete feed, with the exception of: | - | 150 mg/kg (calculated as allylisothiocyanate) | |
| | | • Complete feeds for cattle (except calves), sheep (except lambs) and goats (except kids); | - | 1 000 mg/kg (calculated as allylisothiocyanate) | |
| | | • Complete feeds for pigs (except of piglets) and poultry. | - | 500 mg/kg (calculated as allylisothiocyanate) | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*27. Upon request of the competent authorities, the responsible operator must perform an analysis to demonstrate that the content of total glucosinolates is lower than 30 mmol/kg. The method of analysis of reference is EN-ISO 9167-1:1995.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Antinutritional factors: Other** | | | | | |
| C43 | Free gossypol | Feed materials, with the exception of: | - | 20 mg/kg | |
| | | • cotton seed; | - | 6 000 mg/kg | |
| | | • cotton seed cake and cotton seed meal. | - | 1 200 mg/kg | |
| | | Complete feed, with the exception of: | - | 20 mg/kg | |
| | | • complete feed for cattle (except calves); | - | 500 mg/kg | |
| | | • complete feed for sheep (except lambs) and goats (except kids); | - | 300 mg/kg | |
| | | • complete feed for poultry (except laying hens) and calves; | - | 100 mg/kg | |
| | | • complete feed for rabbits, lambs, kids and pigs (except piglets). | - | 60 mg/kg | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C44 | Zearalenon | Compound feed on full ration basis for: | | | The European Commission has published "Recommendation 2006/576/EC" regarding the guidance values for this mycotoxin. GMP+ International has established other values to comply. |
| | | • sows and consumption pigs; | 0,2 mg/kg | 0,25 mg/kg | |
| | | • young pigs; | 0,08 mg/kg | 0,1 mg/kg | |
| | | • young cattle and dairy cattle. | 0,4 mg/kg | 0,5 mg/kg | |
| | | Compound feed for: | | | |
| | | • puppies, kittens, dogs and cats for reproduction; | 0,1 mg/kg | - | |
| | | • adult dogs and cats other than for reproduction; | 0,2 mg/kg | - | |
| | | • sheep (including lamb) and goats (including kids). | 0,5 mg/kg | - | |
| | | Feed material (supplied to the livestock farmer for immediate feeding) for [18]; | | | |
| | | • sows and pigs; | 0,25 mg/kg | 0,75mg/kg | |
| | | • young pigs; | 0,1 mg/kg | 0,3 mg/kg | |
| | | • young cattle and dairy cattle. | 0,5 mg/kg | 1,5 mg/kg | |
| | | Feed materials for other purposes: | | | |
| | | • Cereals and cereal products [18 + 19] with the exception of maize by-products; | 2 mg/kg | - | |
| | | • Maize by-products. | 3 mg/kg | - | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*18. The supplier provides information to the livestock farmer in the event of infringement of the action limit for the level of the undesirable substance and provides advice on processing the product in the daily ration*

*19. The term 'Cereals and cereal products' includes not only the feed materials listed under heading 1 'Cereal grains and products derived thereof' of the list of feed materials referred to in part C of the European Catalogue of feed materials but also other feed materials derived from cereals in particular cereal forages and roughages*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Other undesirable substances and products** | | | | | |
| C46 | Melamine [28] | Feed, with the exception of: | | 2,5 mg/kg | *EFSA recommendation: LC-MS/MS (liquid chromatography coupled to mass spectrometry* |
| | | • canned pet food, | | 2,5 mg/kg [29] | |
| | | • the following feed additives: | | | |
| | | ◦ guanidino acetic acid (GAA); | | 20 mg/kg | |
| | | ◦ urea; | | - | |
| | | ◦ biuret. | | - | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*28. The maximum level refers to melamine only. The inclusion of the structurally related compounds cyanuric acid, ammeline and ammelide in the maximum level will be considered at a later stage.*

*29. The maximum level is applicable to canned pet food as sold.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Pesticides (Crop protection agents)** | | | | | |
| C62 | Pesticides | Animal feed | | The statutory limits of EU Regulation 396/2005 are valid.<br><br>See Support document S9.14 Managing pesticides residue in feed | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C109 | Fumonisin B1 + B2 | Feed materials: | | | Particular attention has to be paid to cereals and cereals products fed directly to the animals that their use in a daily ration should not lead to the animal being exposed to a higher level of these mycotoxins than the corresponding levels of exposure where only the complete feedingstuffs are used in a daily ration. |
| | | • maize and maize products [30] | 60 mg/kg | | |
| | | Complementary and complete feedingstuffs for: | | | |
| | | • pigs, horses (Equidae), rabbits and pet animals; | 5 mg/kg | | |
| | | • fish; | 10 mg/kg | | |
| | | • poultry, calves (< 4 months), lambs and kids; | 20 mg/kg | | |
| | | • adult ruminants (> 4 months) and mink. | 50 mg/kg | | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*30. The term 'Maize and maize products' includes not only the feed materials derived from maize listed under heading 1 'Cereal grains, their products and by-products' of the non-exclusive list of main feed materials referred to in the Annex, part B of Directive 96/25/EC but also other feed materials derived from maize in particular maize forages and roughages. (note: Directive 96/25/EC is replaced by the Catalogue of feed materials).*

| Code | Contaminant | Product | Action limit [4] | Rejection limit [4] | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Mycotoxin** | | | | | |
| C113 | T-2 and HT-2 toxin, Sum of | Unprocessed cereals: | | | Unprocessed cereals are cereals which have not undergone any physical or thermal treatment other than drying, cleaning and sorting. |
| | | • barley (including malting barley) and maize; | 0,2 mg/kg (on product basis) [31] | - | |
| | | • oats (with husk); | 1 mg/kg (on product basis) [31] | - | |
| | | • wheat, rye and other cereals. | 0,1 mg/kg (on product basis) [31] | - | |
| | | Cereal products for feed and compound feed | | | |
| | | • oat milling products (husks); | 2 mg/kg [31] | - | |
| | | • other cereal products; | 0,5 mg/kg [31] | - | |
| | | • compound feed, with the exception of feed for cats. | 0,25 mg/kg [31] | - | |
| | | Compound feed for cats | 0,05 mg/kg [31] | - | |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

*31. The levels referred to in this Annex are indicative levels above which, certainly in the case of repetitive findings, investigations should be performed on the factors leading to the presence of T-2 and HT-2 toxin or on the effects of feed and food processing. The indicative levels are based on the occurrence data available in the EFSA database as presented in the EFSA opinion. The indicative levels are not feed and food safety levels.*

| Code | Contaminant | Product | Action limit [4] | Rejection limit | Supplementary requirements |
|---|---|---|---|---|---|
| **Chemical: Other undesirable substances and products** | | | | | |
| C134 | Polyethylene | Fat and oil products (feed materials) | 0,25 g/kg (on fat basis) | 0,5 g/kg (on fat basis) | See TS 1.4 Forbidden Products and Fuels |

*4. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

# Physical hazards

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F5 | Unhusked beech mast - Fagus sylvatica L. | Feed materials and compound feed | - | Seeds and fruits of the plant species listed opposite as well as their processed derivatives may only be present in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F6 | Chinese mustard – Brassica juncea (L.) Czern. and Coss. ssp. juncea var. lutea Batalin | Feed materials and compound feed | - | Seeds may only be present in feed in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F7 | Ethiopian mustard – Brassica carinata A. Braun | Feed materials and compound feed | - | Seeds may only be present in feed in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F8 | Indian mustard - Brassica juncea (L.) Czern. and Coss. ssp. integrifolia (West.) Thell. | Feed materials and compound feed | - | Seeds may only be present in feed in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| C10 | Crotalaria spp. | Feed materials and compound feed | - | 100 mg/kg | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F10 | Purghera - Jatropha curcas L. | Feed materials and compound feed | - | Seeds and fruits of the plant species listed opposite as well as their processed derivatives may only be present in feed in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physcial: Harmful Botanical impurities** | | | | | |
| F12 | Sareptian mustard - Brassica juncea (L.) Czern. and Coss. ssp. juncea | Feed materials and compound feed | - | Seeds may only be present in feed in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F13 | Seeds from Ambrosia spp. | Feed materials (*), with the exception of: | - | 50 mg/kg | |
| | | • Millet (grains of *Panicum miliaceum* L.) and sorghum (grains of *Sorghum bicolor* (L) Moench s.l.) not directly fed to animals (*) | - | 200 mg/kg | |
| | | Compound feed containing unground grains and seeds | - | 50 mg/kg | |
| * In case unequivocal evidence is provided that the grains and seeds are intended for milling or crushing, there is no need to perform a cleaning of the grains and seeds containing concompliant levels of seeds of Ambrosia spp. before milling or crushing on the condition that: —the consignment is transported as a whole to the milling or crushing plant, and — the milling or crushing plant is informed in advance of the presence of high level of Ambrosia spp. seeds in order take additional prevention measures to avoid dissemination into the environment, and — solid evidence is provided that prevention measures are taken to avoid dissemination of Ambrosia spp. seeds into the environment during transport to the crushing or milling plant, and — the competent authority agrees to the transport, after having ensured that the abovementioned conditions are fulfilled. In case these conditions are not fulfilled, the consignment must be cleaned before any transport into the EU and the screenings must be appropriately destroyed.' | | | | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| F14 | Black mustard – Brassica nigra (L.) Koch | Feed materials and compound feed | - | Seeds may only be present in feed in trace amounts not quantitatively determinable | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Other undesirable substances and products** | | | | | |
| F26 | Radioactivity<br>Sum of Cs-134 and Cs-137 | Feed intended for: | | | - Special conditions governing the import of feed originating in or consigned from Japan following the accident at the Fukushima nuclear power station.<br>- In order to ensure consistency with maximum levels currently applied in Japan, these values replace on a provisional basis the values laid down in Regulation (Euratom) 2016/52. |
| | | • cattle and horses; | | 100 (Bq/kg) | |
| | | • pig; | | 80 (Bq/kg) | |
| | | • poultry; | | 160 (Bq/kg) | |
| | | • fish [33]. | | 40 (Bq/kg) | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*33. With the exemption of feed for ornamental fish.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Bodies foreign to the product** | | | | | |
| F30 | Packaging material | - Feed materials for delivery to livestock farms, and<br>- Wet mixes for delivery to livestock farmers | - | 1.5 g/kg (dry matter basis) | Packaging materials are fibres of paper and board, fragments of plastic, aluminium foil and metal, plastic clips, metal wires, etc.<br><br>Via manual separation and weighing<br><br>See TS 1.4 Forbidden Products and Fuels<br><br>This norm was included subject to the outcome of the discussion taking place in the European Commission. |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

| Code | Contaminant | Product | Action limit [32] | Rejection limit [32] | Supplementary requirements |
|---|---|---|---|---|---|
| **Physical: Harmful Botanical impurities** | | | | | |
| C32a | - Datura sp. | Feed material and compound feed | - | 1 000 mg/kg | |

*32. Action limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then an investigation into the cause should be undertaken and corrective measures should be taken to remove or control that cause. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*
*Rejection limit: A feasible limit agreed in consultation with the sector, supplier or customer. If this limit is exceeded then the product is not suitable for use as feed material or animal feed. Maximum levels in mg/kg (ppm) of the feed materials or compound feeds, derived to a moisture content of 12% unless mentioned differently.*

# Feed Support Products

That was a lot of information to digest and one might ask, what is the next step? Luckily we can offer support for the GMP+ Community when doing this. We provide support by means of various tools and guidances but as each company has a shared responsibility to feed safety, and therefor tailor-made solutions cannot be offered. However, we do help by explaining requirements and provide background information about the requirements.
We have developed various supporting materials for the GMP+ Community. These include various tools, ranging from Frequently Asked Questions (FAQ) lists to webinars and events.

| |
|---|
| Where to find more about the GMP+ International Feed Support Products<br>Fact sheets<br>More information: https://www.gmpplus.org/en/services/feed-support-products/fact-sheets/<br>Review fact sheets: GMP+ Portal https://portal.gmpplus.org/en-US/tools/fsp/ |

**Feed Support Products (FSP)**
Feed Support Products (FSP) provides valuable and up-to-date information about potentially high-risk feed. The products vary from flow charts of production processes including the risks (Risk Assessments) and studies on undesirable substances (fact sheets).

We enable every company in the feed chain to take responsibility for safe and sustainable feed.

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