

Directive 2002/32/EC of the European Parliament and of the Council of 7 May 2002 on undesirable substances in animal feed

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ANNEX I

Undesirable substances	Products intended for animal feed ^s	Maximum content in mg/kg (ppm) relative to a feedingstuff with a moisture content of 12 %
(1)	(2)	(3)
[^{F10} 1. Arsenic ^g	Feed materials with the exception of:	2
	— meal made from grass, from dried lucerne and from dried clover, and dried sugar beet pulp and dried molasses sugar beet pulp	4
	— palm kernel expeller	4 ^h
	— phosphates and calcareous marine algae	10
	— calcium carbonate	15
	— magnesium oxide	20
	— feedingstuffs obtained from the processing of fish or other marine animals	15 ^h

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	— seaweed meal and feed materials derived from seaweed	40 ^h
	Complete feedingstuffs with the exception of:	2
	— complete feedingstuffs for fish and complete feedingstuffs for fur animals	6 ^h
	Complementary feedingstuffs with the exception of:	4
	— mineral feedingstuffs	12
[^{F11} 2. Lead ⁱ	Feed materials with the exception of:	10
	– green fodder ⁱ	30 ^k
	– phosphates and calcareous marine algae	15
	– calcium carbonate	20
	– yeasts	5
	Additives belonging to the functional group of compounds of trace elements except	100
	– zinc oxide	400 ^k
	– manganous oxide, iron carbonate, copper carbonate	200 ^k
	Additives belonging to the functional groups of binders and	30 ^k

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	anti-caking agents except	
	– clinoptilolite of volcanic origin	60 ^k
	Premixtures	200 ^k
	Complementary feedingstuffs with the exception of	10
	– mineral feedingstuffs	15
	Complete feedingstuffs	5]]
[^{F63} . Fluorine ^l	Feed materials with the exception of	150
	— feedingstuffs of animal origin with the exception of marine crustaceans such as marine krill	500
	— marine crustaceans such as marine krill	3 000
	— phosphates	2 000
	— calcium carbonate	350
	— magnesium oxide	600
	— calcareous marine algae	1 000
	Vermiculite (E 561)	3 000 ^r
	Complementary feedingstuffs	

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	— containing ≤ 4 % phosphorus	500
	— containing > 4 % phosphorus	125 per 1 % phosphorus
	Complete feedingstuffs with the exception of	150
	— complete feedingstuffs for cattle sheep and goats	
	— in lactation	30
	— other	50
	— complete feedingstuffs for pigs	100
	— complete feedingstuffs for poultry	350
	— complete feedingstuffs for chicks	250
	— complete feedingstuffs for fish	350]
[^{F12} 4. Mercury	Feed materials with the exception of:	0,1
	— feedingstuffs produced by the processing of fish or other marine animals	0,5

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	— calcium carbonate	0,3
	Complete feedingstuffs with the exception of:	0,1
	— complete feedingstuffs for dogs and cats	0,4
	Complementary feedingstuffs except — complementary feedingstuffs for dogs and cats	0,2]
5. Nitrites	Fish meal	60 (expressed as sodium nitrite)
	Complete feedingstuffs excluding:	15 (expressed as sodium nitrite)
	— feedingstuffs intended for pets except birds and aquarium fish	
[^{F11} 6. Cadmium ^m	Feed materials of vegetable origin	1
	Feed materials of animal origin	2
	Feed materials of mineral origin except	2
	– phosphates	10
	Additives belonging to the functional group of compounds of trace elements except	10
	– copper oxide, manganous oxide, zinc oxide and manganous sulphate monohydrate	30 ^k

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	Additives belonging to the functional groups of binders and anti-caking agents	2
	Premixtures	15 ^k
	Mineral feedingstuffs	
	– containing < 7 % phosphorus	5
	– containing ≥ 7 % phosphorus	0,75 per 1 % phosphorus, with a maximum of 7,5
	Complementary feedingstuffs for pet animals	2
	Other complementary feedingstuffs	0,5
	Complete feedingstuffs for cattle, sheep and goats and feedingstuffs for fish except	1
	– complete feedingstuffs for pets	2
	– complete feedingstuffs for calves, lambs and kids and other complete feedingstuffs	0,5]
[^{F10} 7. Aflatoxin B1	All feed materials	0,02
	Complete feedingstuffs for cattle, sheep and goats with the exception of:	0,02
	— complete feedingstuffs for dairy animals	0,005

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	— complete feedingstuffs for calves and lambs	0,01
	Complete feedingstuffs for pigs and poultry (except young animals)	0,02
	Other complete feedingstuffs	0,01
	Complementary feedingstuffs for cattle, sheep and goats (except complementary feedingstuffs for dairy animals, calves and lambs)	0,02
	Complementary feedingstuffs for pigs and poultry (except young animals)	0,02
	Other complementary feedingstuffs	0,005]
8. Hydrocyanic acid	Feed materials with the exception of:	50
	— linseed	250
	— linseed cakes	350
	— manioc products and almond cakes	100
	Complete feedingstuffs with the exception of:	50
	— complete feedingstuffs for chicks	10
[^{F109} . Free gossypol	Feed materials with the exception of:	20
	— cottonseed	5 000
	— cottonseed cakes and cottonseed meal	1 200

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	Complete feedingstuffs with the exception of:	20
	— complete feedingstuffs for cattle, sheep and goats	500
	— complete feedingstuffs for poultry (except laying hens) and calves	100
	— complete feedingstuffs for rabbits and pigs (except piglets)	60]
10. Theobromine	Complete feedingstuffs with the exception of:	300
	— complete feedingstuffs for adult cattle	700
11. Volatile mustard oil	Feed materials with the exception of:	100
	— rapeseed cakes	4 000 (expressed as allyl isothiocyanate)
	Complete feedingstuffs with the exception of:	150 (expressed as allyl isothiocyanate)
	— complete feedingstuffs for cattle, sheep and goats (except young animals)	1 000 (expressed as allyl isothiocyanate)
	— complete feedingstuffs for pigs (except piglets) and poultry	500 (expressed as allyl isothiocyanate)
12. Vinal thioxazolidone (Vinyloxazolidine thione)	Complete feedingstuffs for	1 000

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		poultry with the exception of:	
		— complete feedingstuffs for laying hens	500
13.	Rye ergot (<i>Claviceps purpurea</i>)	All feedingstuffs containing unground cereals	1 000
[^{F6} 14.	Weed seeds and unground and uncrushed fruits containing alkaloids, glucosides or other toxic substances separately or in combination including	All feedingstuffs	3 000
	<i>Datura stramonium L.</i>		1 000]
15.	Castor oil plant — <i>Ricinus communis L.</i>	All feedingstuffs	10 (expressed in terms of castor-oil plants husks)
16.	<i>Crotalaria spp.</i>	All feedingstuffs	100
[^{F13} 17.	Aldrin ⁿ	All feedingstuffs with the exception of	0,01°
18.	Dieldrin ⁿ	— fats and oils	0,1°
		— fish feed	0,02°
19.	Camphechlor (toxaphene) — sum of indicator congeners CHB 26, 50 and 62 ^p	— Fish, other aquatic animals, their products and by-products with the exception of fish oil	0,02
		— Fish oil ^q	0,2
		— Feedingstuffs for fish ^q	0,05
20.	Chlordane (sum of cis- and trans-isomers and of oxychlordane, expressed as chlordane)	All feedingstuffs with the exception of	0,02
		— fats and oils	0,05

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[^{F6} 21.	DDT (sum of DDT-, DDD- (or TDE-) and DDE-isomers, expressed as DDT)	All feedingstuffs with the exception of	0,05
		— fats and oils	0,5]
22.	Endosulfan (sum of alpha- and beta-isomers and of endosulfansulphate expressed as endosulfan)	All feedingstuffs with the exception of	0,1
		— maize and maize products derived from the processing thereof	0,2
		— oilseeds and products derived from the processing thereof with the exception of crude vegetable oil	0,5
		— crude vegetable oil	1,0
		— complete feedingstuffs for fish	0,005
23.	Endrin (sum of endrin and of delta-ketoi-endrin, expressed as endrin)	All feedingstuffs with the exception of	0,01
		— fats and oils	0,05
24.	Heptachlor (sum of heptachlor and of heptachlorepoide, expressed as heptachlor)	All feedingstuffs with the exception of	0,01
		— fats and oils	0,2
25.	Hexachlorobenzene (HCB)	All feedingstuffs with the exception of	0,01
		— fats and oils	0,2

26.Hexachlorocyclohexane (HCH)

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26.1.	alpha-isomers	All feedingstuffs with the exception of	0,02
		— fats and oils	0,2
26.2.	beta-isomers	All feed materials with the exception of	0,01
		— fats and oils	0,1
		All compound feedingstuffs with the exception of	0,01
		— compound feedingstuffs for dairy cattle	0,005
26.3.	gamma-isomers	All feedingstuffs with the exception of	0,2
		— fats and oils	2,0]
[^{F2} 27a.	Dioxins (sum of polychlorinated dibenzo- <i>para</i> -dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) expressed in World Health Organisation (WHO) toxic equivalents, using the WHO-TEFs (toxic equivalency factors, 1997 ^c	(a) Feed materials of plant origin with the exception of vegetable oils and their by-products	0,75 ng WHO-PCDD/F-TEQ/kg ^{de}
		(b) Vegetable oils and their by-products	0,75 ng WHO-PCDD/F-TEQ/kg ^{de}
		(c) Feed materials of mineral origin	1,0 ng WHO-PCDD/F-TEQ/kg ^{de}
		(d) Animal fat, including milk fat and egg fat	2,0 ng WHO-PCDD/F-TEQ/kg ^{de}
		(e) Other land animal products	0,75 ng WHO-PCDD/F-TEQ/kg ^{de}

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	including milk and milk products and eggs and egg products	
(f)	Fish oil	6,0 ng WHO-PCDD/F-TEQ/kg ^{de}
(g)	Fish, other aquatic animals, their products and by-products with the exception of fish oil and fish protein hydrolysates containing more than 20 % fat ^f	1,25 ng WHO-PCDD/F-TEQ/kg ^{de}
(h)	Fish protein hydrolysates containing more than 20 % fat	2,25 ng WHO-PCDD/F-TEQ/kg ^{de}
(i)	The additives kaolinitic clay, calcium sulphate dihydrate, vermiculite, natrolite-phonolite, synthetic calcium aluminates and clinoptilolite of sedimentary origin belonging	0,75 ng WHO-PCDD/F-TEQ/kg ^{de}

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		to the functional groups of binders and anti-caking agents	
	(j)	Additives belonging to the functional group of compounds of trace elements	1,0 ng WHO-PCDD/F-TEQ/kg ^{de}
	(k)	Premixtures	1,0 ng WHO-PCDD/F-TEQ/kg ^{de}
	(l)	Compound feedingstuffs, with the exception of feed for fur animals, pet foods and feed for fish	0,75 ng WHO-PCDD/F-TEQ/kg ^{de}
	(m)	Feed for fish. Pet foods	2,25 ng WHO-PCDD/F-TEQ/kg ^{de}
27b.		Sum of dioxins and dioxin-like PCBs (sum of polychlorinated dibenzo- <i>para</i> -dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs) and polychlorinated biphenyls (PCBs) expressed in World Health Organisation (WHO) toxic equivalents, using the WHO-TEFs (toxic equivalency factors, 1997 ^c	
	(a)	Feed materials of plant origin with the exception of vegetable oils and their by-products	1,25 ng WHO-PCDD/F-PCB-TEQ/kg ^d
	(b)	Vegetable oils and their by-products	1,5 ng WHO-PCDD/F-PCB-TEQ/kg ^d
	(c)	Feed materials of mineral origin	1,5 ng WHO-PCDD/F-PCB-TEQ/kg ^d

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(d)	Animal fat, including milk fat and egg fat	3,0 ng WHO-PCDD/F-PCB-TEQ/kg ^d
(e)	Other land animal products including milk and milk products and eggs and egg products	1,25 ng WHO-PCDD/F-PCB-TEQ/kg ^d
(f)	Fish oil	24,0 ng WHO-PCDD/F-PCB-TEQ/kg ^d
(g)	Fish, other aquatic animals, their products and by-products with the exception of fish oil and fish protein hydrolysates containing more than 20 % fat ^f	4,5 ng WHO-PCDD/F-PCB-TEQ/kg ^d
(h)	Fish protein hydrolysates containing more than 20 % fat	11,0 ng WHO-PCDD/F-PCB-TEQ/kg ^d
(i)	Additives belonging to the functional groups of binders and anti-caking agents	1,5 ng WHO-PCDD/F-PCB-TEQ/kg ^d

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	(j) Additives belonging to the functional group of compounds of trace elements	1,5 ng WHO-PCDD/ F-PCB-TEQ/kg ^d
	(k) Premixtures	1,5 ng WHO-PCDD/ F-PCB-TEQ/kg ^d
	(l) Compound feedingstuffs, with the exception of feed for fur animals, pet foods and feed for fish	1,5 ng WHO-PCDD/ F-PCB-TEQ/kg ^d
	(m) Feed for fish. Pet foods	7,0 ng WHO-PCDD/ F-PCB-TEQ/kg ^d
[^{F14} 28. Apricots — <i>Prunus armeniaca</i> L.]	All feedingstuffs	Seeds and fruit of the plant species listed opposite as well as their processed derivatives may only be present in feedingstuffs in trace amounts not quantitatively determinable
[^{F14} 29. Bitter almond — <i>Prunus dulcis</i> (Mill.) D.A. Webb var. <i>amara</i> (DC.) Focke (= <i>Prunus amygdalus</i> Batsch var. <i>amara</i> (DC.) Focke)]		
30. Unhusked beech mast — <i>Fagus sylvatica</i> L.		
[^{F14} 31. Camelina — <i>Camelina sativa</i> (L.) Crantz]		
32. Mowrah, <i>Bassia</i> , <i>Madhuca</i> — <i>Madhuca longifolia</i> (L.) Macbr. (= <i>Bassia longifolia</i> L. = <i>Illipe malabrorum</i> Engl.) <i>Madhuca indica</i> Gmelin (= <i>Bassia latifolia</i> Roxb.) = <i>Illipe latifolia</i> (Roscb.) F. Mueller)		
33. Purghera — <i>Jatropha curcas</i> L.		
34. Croton — <i>Croton tiglium</i> L.		
35. Indian mustard — <i>Brassica juncea</i> (L.) Czern. And Coss. ssp. <i>intergrifolia</i> (West.) Thell.		
36. Sareptian mustard — <i>Brassica juncea</i> (L.) Czern. And Coss. ssp. <i>juncea</i>		

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37. Chinese mustard — <i>Brassica juncea</i> (L.) Czern. And Coss. ssp. <i>juncea</i> var. <i>lutea</i> Batalin		
38. Black mustard — <i>Brassica nigra</i> (L.) Koch		
39. Ethiopian mustard — <i>Brassica carinata</i> A. Braun		
[^{F9} 40. Lasalocid sodium	Feed materials	1,25
	Compound feed for	
	— dogs, calves, rabbits, equine species, dairy animals, laying birds, turkeys (> 12 weeks) and chickens reared for laying (> 16 weeks);	1,25
	— chickens for fattening, chickens reared for laying (< 16 weeks) and turkeys (< 12 weeks) for the period before slaughter in which the use of lasalocid sodium is prohibited (withdrawal feed);	1,25
	— other animal species.	3,75
Premixtures for use in feed in which the use of lasalocid		†

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		sodium is not authorised.	
41.	Narasin	Feed materials	0,7
		Compound feed for	
		— turkeys, rabbits, equine species, laying birds and chickens reared for laying (> 16 weeks);	0,7
		— chickens for fattening for the period before slaughter in which the use of narasin is prohibited (withdrawal feed);	0,7
		— other animal species.	2,1
		Premixtures for use in feed in which the use of narasin is not authorised.	^t
42.	Salinomycin sodium	Feed materials	0,7
		Compound feed for	
		— equine species, turkeys, laying birds and chickens reared for laying (> 12 weeks);	0,7
		— chickens for fattening, chickens reared for laying (< 12	0,7

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	weeks) and rabbits for fattening for the period before slaughter in which the use of salinomycin sodium is prohibited (withdrawal feed);	
	— other animal species.	2,1
	Premixtures for use in feed in which the use of salinomycin sodium is not authorised.	^t
43.	Monensin sodium	
	Feed materials	1,25
	Compound feed for	
	— equine species, dogs, small ruminants (sheep and goat), ducks, bovine, dairy cattle, laying birds, chickens reared for laying (> 16 weeks) and turkeys (> 16 weeks);	1,25
	— chickens for fattening, chickens reared for laying (< 16 weeks) and turkeys (< 16 weeks) for the period before slaughter	1,25

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		in which the use of monensin sodium is prohibited (withdrawal feed);	
	—	other animal species.	3,75
		Premixtures for use in feed in which the use of monensin sodium is not authorised.	^t
44.	Semduramicin sodium		
		Feed materials	0,25
		Compound feed for	
	—	laying birds and chickens reared for laying (> 16 weeks);	0,25
	—	chickens for fattening for the period before slaughter in which the use of semduramicin sodium is prohibited (withdrawal feed);	0,25
	—	other animal species.	0,75
		Premixtures for use in feed in which the use of semduramicin sodium is not authorised.	^t
45.	Maduramicin ammonium alpha		
		Feed materials	0,05
		Compound feed for	
	—	equine species, rabbits, turkeys (>	0,05

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	16 weeks), laying birds and chickens reared for laying (> 16 weeks);	
	— chickens for fattening and turkeys (< 16 weeks) for the period before slaughter in which the use of maduramicin ammonium alpha is prohibited (withdrawal feed);	0,05
	— other animal species.	0,15
	Premixtures for use in feed in which the use of maduramicin ammonium alpha is not authorised.	^t
46.	Robenidine hydrochloride	
	Feed materials	0,7
	Compound feed for	
	— laying birds and chickens reared for laying (> 16 weeks);	0,7
	— chickens for fattening, rabbits for fattening and breeding and turkeys for the period before slaughter	0,7

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		in which the use of robenidine hydrochloride is prohibited (withdrawal feed);	
		— other animal species.	2,1
		Premixtures for use in feed in which the use of robenidine hydrochloride is not authorised.	^t
47.	Decoquinat	Feed materials	0,4
		Compound feed for	
		— laying birds and chickens reared for laying (> 16 weeks);	0,4
		— chickens for fattening for the period before slaughter in which the use of decoquinat is prohibited (withdrawal feed);	0,4
		— other animal species.	1,2
		Premixtures for use in feed in which the use of decoquinat is not authorised.	^t
48.	Halofuginone hydrobromide	Feed materials	0,03
		Compound feed for	
		— laying birds, chickens reared for laying (> 16 weeks) and	0,03

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	turkeys (> 12 weeks);	
—	chickens for fattening and turkeys (< 12 weeks) for the period before slaughter in which the use of halofuginone hydrobromide is prohibited (withdrawal feed);	0,03
—	other animal species other than chickens reared for laying (< 16 weeks).	0,09
	Premixtures for use in feed in which the use of halofuginone hydrobromide is not authorised.	^t
49.	Nicarbazin	
	Feed materials	0,5
	Compound feed for	
—	equine species, laying birds and chickens reared for laying (> 16 weeks);	0,5
—	chickens for fattening for the period before slaughter in which the use of nicarbazin (in combination	0,5

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		with narasin) is prohibited (withdrawal feed);	
	—	other animal species.	1,5
		Premixtures for use in feed in which the use of nicarbazin (in combination with narasin) is not authorised.	^t
50.	Diclazuril	Feed materials	0,01
		Compound feed for	
	—	laying birds, chickens reared for laying (> 16 weeks) and turkeys for fattening (> 12 weeks);	0,01
	—	rabbits for fattening and breeding for the period before slaughter in which the use of diclazuril is prohibited (withdrawal feed);	0,01
	—	other animal species other than chickens reared for laying (< 16 weeks), chickens for fattening and turkeys for fattening (< 12 weeks).	0,03

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		Premixtures for use in feed in which the use of diclazuril is not authorised.]	t
a	[^{F1}		
b	^{F1}]		
c	[^{F2} WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, and PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).		
	Congener	TEF value	Congener
	Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs
	2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs
	1,2,3,7,8-PeCDD	1	Non-ortho PCBs
	1,2,3,4,7,8-HxCDD	0,1	PCB 77
	1,2,3,6,7,8-HxCDD	0,1	PCB 81
	1,2,3,7,8,9-HxCDD	0,1	PCB 126
	1,2,3,4,6,7,8-HpCDD	0,01	PCB 169
	OCDD	0,0001	
	Dibenzofurans (PCDFs)		Mono-ortho PCBs
	2,3,7,8-TCDF	0,1	PCB 105
	1,2,3,7,8-PeCDF	0,05	PCB 114
	2,3,4,7,8-PeCDF	0,5	PCB 118
	1,2,3,4,7,8-HxCDF	0,1	PCB 123
	1,2,3,6,7,8-HxCDF	0,1	PCB 156
	1,2,3,7,8,9-HxCDF	0,1	PCB 157
	2,3,4,6,7,8-HxCDF	0,1	PCB 167
	1,2,3,4,6,7,8-HpCDF	0,01	PCB 189
	1,2,3,4,7,8,9-HpCDF	0,01	
	OCDF	0,0001	
	Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.		
d	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.		
e	The separate maximum level for dioxins (PCDD/F) remains applicable for a temporary period. The products intended for animal feed mentioned in point 27a have to comply both with the maximum levels for dioxins and with the maximum levels for the sum of dioxins and dioxin-like PCBs during that temporary period.		
f	Fresh fish directly delivered and used without intermediate processing for the production of feed for fur animals is not subject to the maximum levels, while maximum levels of 4,0 ng WHO-PCDD/F-TEQ/kg product and 8,0 ng WHO-PCDD/F-PCB-TEQ/kg product are applicable to fresh fish used for the direct feeding of pet animals, zoo and circus animals. The products, 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.]		
g	[^{F3} The maximum levels refer to total arsenic.		
h	Upon request of the competent authorities, the responsible operator must perform an analysis to demonstrate that the content of inorganic arsenic is lower than 2 ppm. This analysis is of particular importance for the seaweed species <i>Hizikia fusiforme</i> .]		
i	[^{F4} Green fodder includes products intended for animal feed such as hay, silage, fresh grass, etc ...]		
j	[^{F5} Maximum levels refer 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.		
k	The levels shall be reviewed by 31 December 2007 with the aim of reducing the maximum levels.]		

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-
- l** [^{F6}Maximum levels refer to an analytical determination of fluorine, whereby extraction is performed with hydrochloric acid 1 N for 20 minutes at ambient temperature. Equivalent extraction procedures can be applied for which it can be demonstrated that the used extraction procedure has an equal extraction efficiency.]
-
- m** [^{F5}Maximum levels refer 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.]
-
- n** [^{F7}Singly or combined expressed as dieldrin.]
-
- o** Maximum level for aldrin and dieldrin, singly or combined, expressed as dieldrin.
-
- p** 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.
-
- q** The levels shall be reviewed by 31 December 2007 with the aim of reducing the maximum levels.]
-
- r** [^{F8}The levels shall be reviewed by 31 December 2008 with the aim of reducing the maximum levels.]
-
- s** [^{F9}Without prejudice to the authorised levels in the frame 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.]
-
- t** The maximum level of the substance in the premixture is the concentration which shall not result in a level of the substance higher than 50 % of the maximum levels established in the feed when the instructions for use of the premixture are followed.]
-

Textual Amendments

- F1** Deleted by [Commission Directive 2005/8/EC of 27 January 2005 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed \(Text with EEA relevance\).](#)
- F2** Substituted by [Commission Directive 2006/13/EC of 3 February 2006 amending Annexes I and II to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed as regards dioxins and dioxin-like PCBs \(Text with EEA relevance\).](#)
- F3** Inserted by [Commission Directive 2003/100/EC of 31 October 2003 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed \(Text with EEA relevance\).](#)
- F4** Inserted by [Commission Directive 2005/8/EC of 27 January 2005 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed \(Text with EEA relevance\).](#)
- F5** Inserted by [Commission Directive 2005/87/EC of 5 December 2005 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed as regards lead, fluorine and cadmium \(Text with EEA relevance\).](#)
- F6** Substituted by [Commission Directive 2008/76/EC of 25 July 2008 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed \(Text with EEA relevance\).](#)
- F7** Inserted by [Commission Directive 2006/77/EC of 29 September 2006 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels for organochlorine compounds in animal feed \(Text with EEA relevance\).](#)
- F8** Inserted by [Commission Directive 2008/76/EC of 25 July 2008 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed \(Text with EEA relevance\).](#)
- F9** Inserted by [Commission Directive 2009/8/EC of 10 February 2009 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels of unavoidable carry-over of coccidiostats or histomonostats in non-target feed \(Text with EEA relevance\).](#)
- F10** Substituted by [Commission Directive 2003/100/EC of 31 October 2003 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed \(Text with EEA relevance\).](#)

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- F11** Substituted by Commission Directive 2005/87/EC of 5 December 2005 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed as regards lead, fluorine and cadmium (Text with EEA relevance).
- F12** Substituted by Commission Directive 2005/8/EC of 27 January 2005 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed (Text with EEA relevance).
- F13** Substituted by Commission Directive 2006/77/EC of 29 September 2006 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels for organochlorine compounds in animal feed (Text with EEA relevance).
- F14** Deleted by Commission Directive 2008/76/EC of 25 July 2008 amending Annex I to Directive 2002/32/EC of the European Parliament and of the Council on undesirable substances in animal feed (Text with EEA relevance).

ANNEX II

[^{F2}Undesirable substances	Products intended for animal feed	Action threshold relative to a feedingstuff with a moisture content of 12 %	Comments and additional information (e.g. nature of investigations to be performed)
(1)	(2)	(3)	(4)

- a** WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001		
Dibenzofurans (PCDFs)		Mono-ortho PCBs	
2,3,7,8-TCDF	0,1	PCB 105	0,0001
1,2,3,7,8-PeCDF	0,05	PCB 114	0,0005
2,3,4,7,8-PeCDF	0,5	PCB 118	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 157	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 167	0,00001
1,2,3,4,6,7,8-HpCDF	0,01	PCB 189	0,0001
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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1.	Dioxins (sum of polychlorinated dibenzo- <i>para</i> -dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs) expressed in World Health Organisation (WHO) toxic equivalents, using the WHO-TEFs (toxic equivalency factors, 1997 ^a)	(a)	Feed materials of plant origin with the exception of vegetable oils and their by-products	0,5 ng WHO-PCDD/F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
		(b)	Vegetable oils and their by-products	0,5 ng WHO-PCDD/F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
		(c)	Feed materials of mineral origin	0,5 ng WHO-PCDD/F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate

a WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)			
2,3,7,8-TCDD	1	"Dioxin-like" PCBs	
1,2,3,7,8-PeCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
1,2,3,4,7,8-HxCDD	0,1	Non-ortho PCBs	
1,2,3,6,7,8-HxCDD	0,1	PCB 77	0,0001
1,2,3,7,8,9-HxCDD	0,1	PCB 81	0,0001
1,2,3,4,6,7,8-HpCDD	0,01	PCB 126	0,1
OCDD	0,0001	PCB 169	0,01
Dibenzofurans (PCDFs)			
2,3,7,8-TCDF	0,1	Mono-ortho PCBs	
1,2,3,7,8-PeCDF	0,05	PCB 105	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 114	0,0005
1,2,3,4,7,8-HxCDF	0,1	PCB 118	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,7,8,9-HxCDF	0,1	PCB 156	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,4,6,7,8-HpCDF	0,01	PCB 167	0,00001
1,2,3,4,7,8,9-HpCDF	0,01	PCB 189	0,0001
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

b 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.

c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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			measures, where possible, to reduce or eliminate source of contamination.
(d)	Animal fat, including milk fat and egg fat	1,0 ng WHO-PCDD/F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(e)	Other land animal products including milk and milk products and eggs and egg products	0,5 ng WHO-PCDD/F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.

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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)			
2,3,7,8-TCDD	1	"Dioxin-like" PCBs	
1,2,3,7,8-PeCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
1,2,3,4,7,8-HxCDD	0,1	Non-ortho PCBs	
1,2,3,6,7,8-HxCDD	0,1	PCB 77	0,0001
1,2,3,7,8,9-HxCDD	0,1	PCB 81	0,0001
1,2,3,4,6,7,8-HpCDD	0,01	PCB 126	0,1
OCDD	0,0001	PCB 169	0,01
Dibenzofurans (PCDFs)			
2,3,7,8-TCDF	0,1	Mono-ortho PCBs	
1,2,3,7,8-PeCDF	0,05	PCB 105	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 114	0,0005
1,2,3,4,7,8-HxCDF	0,1	PCB 118	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,7,8,9-HxCDF	0,1	PCB 156	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,4,6,7,8-HpCDF	0,01	PCB 167	0,00001
1,2,3,4,7,8,9-HpCDF	0,01	PCB 189	0,0001
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b 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.
- c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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(f)	Fish oil	5,0 ng WHO-PCDD/ F-TEQ/kg ^{bc}	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 to 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., should be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.
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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001		
Dibenzofurans (PCDFs)		Mono-ortho PCBs	
2,3,7,8-TCDF	0,1	PCB 105	0,0001
1,2,3,7,8-PeCDF	0,05	PCB 114	0,0005
2,3,4,7,8-PeCDF	0,5	PCB 118	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 157	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 167	0,00001
1,2,3,4,6,7,8-HpCDF	0,01	PCB 189	0,0001
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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(g)	Fish, other aquatic animals, their products and by-products with the exception of fish oil and fish protein hydrolysates containing more than 20 % fat	1,0 ng WHO-PCDD/F-TEQ/kg ^{bc}	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 to 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., must be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.
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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b 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.
- c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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(h)	Fish protein hydrolysates containing more than 20 % fat	1,75 ng WHO-PCDD/F-TEQ/kg ^{bc}	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 to 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., must be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.
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- a** WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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(i)	Additives belonging to the functional groups of binders and anti-caking agents	0,5 ng WHO-PCDD/ F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(j)	Additives belonging to the functional group of compounds of trace elements	0,5 ng WHO-PCDD/ F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(k)	Premixtures	0,5 ng WHO-PCDD/ F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where

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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.

- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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			possible, to reduce or eliminate source of contamination.
(l)	Compound feedingstuffs, with the exception of feedingstuffs for fur animals, pet foods and feedingstuffs for fish	0,5 ng WHO-PCDD/F-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(m)	Feedingstuffs for fish. Pet foods	1,75 ng WHO-PCDD/F-TEQ/kg ^{bc}	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 to or above the action level.

a WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)			
2,3,7,8-TCDD	1	"Dioxin-like" PCBs	
1,2,3,7,8-PeCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
1,2,3,4,7,8-HxCDD	0,1	Non-ortho PCBs	
1,2,3,6,7,8-HxCDD	0,1	PCB 77	0,0001
1,2,3,7,8,9-HxCDD	0,1	PCB 81	0,0001
1,2,3,4,6,7,8-HpCDD	0,01	PCB 126	0,1
OCDD	0,0001	PCB 169	0,01
Dibenzofurans (PCDFs)			
2,3,7,8-TCDF	0,1	Mono-ortho PCBs	
1,2,3,7,8-PeCDF	0,05	PCB 105	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 114	0,0005
1,2,3,4,7,8-HxCDF	0,1	PCB 118	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,7,8,9-HxCDF	0,1	PCB 156	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,4,6,7,8-HpCDF	0,01	PCB 167	0,00001
1,2,3,4,7,8,9-HpCDF	0,01	PCB 189	0,0001
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

b 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.

c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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				However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species etc., must be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.	
2.	Dioxin like PCBs (sum of polychlorinated biphenyls (PCBs) expressed in World Health	(a)	Feed materials of plant origin with the exception of vegetable oils and their by-products	0,35 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.

- a WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b 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.

- c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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Organisation (WHO) toxic equivalents, using the WHO-TEFs (toxic equivalency factors, 1997 ^a)	(b)	Vegetable oils and their by-products	0,5 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
	(c)	Feed materials of mineral origin	0,35 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
	(d)	Animal fat, including milk fat and egg fat	0,75 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where

a WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

b 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.

c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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			possible, to reduce or eliminate source of contamination.
(e)	Other land animal products including milk and milk products and eggs and egg products	0,35 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(f)	Fish oil	14,0 ng WHO-PCB-TEQ/kg ^{bc}	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 to or above the action level.

a WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)			
2,3,7,8-TCDD	1	"Dioxin-like" PCBs	
1,2,3,7,8-PeCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
1,2,3,4,7,8-HxCDD	0,1	Non-ortho PCBs	
1,2,3,6,7,8-HxCDD	0,1	PCB 77	0,0001
1,2,3,7,8,9-HxCDD	0,1	PCB 81	0,0001
1,2,3,4,6,7,8-HpCDD	0,01	PCB 126	0,1
OCDD	0,0001	PCB 169	0,01
Dibenzofurans (PCDFs)			
2,3,7,8-TCDF	0,1	Mono-ortho PCBs	
1,2,3,7,8-PeCDF	0,05	PCB 105	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 114	0,0005
1,2,3,4,7,8-HxCDF	0,1	PCB 118	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,7,8,9-HxCDF	0,1	PCB 156	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,4,6,7,8-HpCDF	0,01	PCB 167	0,00001
1,2,3,4,7,8,9-HpCDF	0,01	PCB 189	0,0001
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

b 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.

c The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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			However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species etc., must be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.
(g)	Fish, other aquatic animals, their products and by-products with the exception of	2,5 ng WHO-PCB-TEQ/kg ^{bc}	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 to or above the action level.

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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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	fish oil and fish protein hydrolysates containing more than 20 % fat		However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species etc., must be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.
(h)	Fish protein hydrolysates containing more than 20 % fat	7,0 ng WHO-PCB-TEQ/kg ^{bc}	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 to or above the action level.

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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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			However, in cases where the action level is exceeded, all information, such as sampling period, geographical origin, fish species etc., must be recorded with a view to future measures to manage the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.
(i)	Additives belonging to the functional groups of binders and anti-caking agents	0,5 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.

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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001		
Dibenzofurans (PCDFs)		Mono-ortho PCBs	
2,3,7,8-TCDF	0,1	PCB 105	0,0001
1,2,3,7,8-PeCDF	0,05	PCB 114	0,0005
2,3,4,7,8-PeCDF	0,5	PCB 118	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 157	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 167	0,00001
1,2,3,4,6,7,8-HpCDF	0,01	PCB 189	0,0001
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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(j)	Additives belonging to the functional group of compounds of trace elements	0,35 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(k)	Premixtures	0,35 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where possible, to reduce or eliminate source of contamination.
(l)	Compound feedingstuffs, with the exception of feedingstuffs	0,5 ng WHO-PCB-TEQ/kg ^{bc}	Identification of source of contamination. Once source is identified, take appropriate measures, where

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Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.

- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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	for fur animals, pet foods and feedingstuffs for fish		possible, to reduce or eliminate source of contamination.
(m)	Feedingstuffs for fish. Pet foods	3,5 ng WHO-PCB-TEQ/kg ^{bc}	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 to 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., must be recorded with a view to future measures to manage

- a** WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001	Mono-ortho PCBs	
Dibenzofurans (PCDFs)		PCB 105	0,0001
2,3,7,8-TCDF	0,1	PCB 114	0,0005
1,2,3,7,8-PeCDF	0,05	PCB 118	0,0001
2,3,4,7,8-PeCDF	0,5	PCB 123	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,6,7,8-HxCDF	0,1	PCB 157	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 167	0,00001
2,3,4,6,7,8-HxCDF	0,1	PCB 189	0,0001
1,2,3,4,6,7,8-HpCDF	0,01		
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

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the presence of dioxins and dioxin-like compounds in these materials for animal nutrition.

- a** WHO-TEFs for human risk assessment based on the conclusions of the World Health Organisation meeting in Stockholm, Sweden, 1518 June 1997 (Van den Berg et al., (1998) Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and for Wildlife. Environmental Health Perspectives, 106(12), 775).

Congener	TEF value	Congener	TEF value
Dibenzo-p-dioxins (PCDDs)		"Dioxin-like" PCBs	
2,3,7,8-TCDD	1	Non-ortho PCBs + Mono-ortho PCBs	
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	0,0001
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	0,01
OCDD	0,0001		
Dibenzofurans (PCDFs)		Mono-ortho PCBs	
2,3,7,8-TCDF	0,1	PCB 105	0,0001
1,2,3,7,8-PeCDF	0,05	PCB 114	0,0005
2,3,4,7,8-PeCDF	0,5	PCB 118	0,0001
1,2,3,4,7,8-HxCDF	0,1	PCB 123	0,0001
1,2,3,6,7,8-HxCDF	0,1	PCB 156	0,0005
1,2,3,7,8,9-HxCDF	0,1	PCB 157	0,0005
2,3,4,6,7,8-HxCDF	0,1	PCB 167	0,00001
1,2,3,4,6,7,8-HpCDF	0,01	PCB 189	0,0001
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0001		

Abbreviations used: "T" = tetra; "Pe" = penta; "Hx" = hexa; "Hp" = hepta; "O" = octa; "CDD" = chlorodibenzodioxin; "CDF" = chlorodibenzofuran; "CB" = chlorobiphenyl.

- b** 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.
- c** The Commission will review these action levels by 31 December 2008 at the latest at the same time as it reviews the maximum levels for the sum of dioxins and dioxin-like PCBs.]

ANNEX III

CORRELATION TABLE

Directive 1999/29/EC	This Directive
Article 1	Article 1
Article 2(a)	Article 2(a)
Article 2(b)	Article 2(b)
Article 2(c)	Article 2(g)
Article 2(d)	Article 2(f)
Article 2(e)	Article 2(e)
Article 2(f)	Article 2(i)
Article 2(g)	Article 2(j)

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Article 2(h)	—
—	Article 2(c)
—	Article 2(d)
—	Article 2(h)
—	Article 2(k)
—	Article 2(l)
Article 3	Article 3
Article 4(1)	Article 4(1)
Article 4(2)	—
—	Article 4(2)
Article 5	—
Article 6	—
Article 7	Article 5
Article 8	Article 6
Article 9	Article 7
Article 10	Article 8
Article 11	Article 9
Article 12	—
—	Article 10
Article 13	Article 11
Article 14	Article 12
Article 15	Article 13
Article 16	—
—	Article 14
—	Article 15
Article 17	Article 16
Article 18	Article 17
Annex I	Annex I
Annex II	—
Annex III	—
Annex IV	Annex II