Contaminant	Product	Rejection limit	Severity	Likely occurence	CCP	Control measure	Sampling Plan	Required Sampling frequency (number of samples pr. year)	Number of samples analyzed in 2019	Lowest value of samples in 2019	Average value of samples in 2019	Highest value of samples in 2019	Evaluation
Aldrin and dieldrin (sum)	Fishmeal	0.01 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	0,003	Ok
	Fish Oil	0.1 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	0,018	0,037	Ok
Camphechlor (toxaphene) Sum of CHB 26, 50, 62	Fishmeal	0.02 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	0.2 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	0,030	Ok
Chlordane (Sum)	Fishmeal	0.02 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	0.05 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	0,018	Ok
DDT (sum of DDT-, DDD- (or TDE-) and DDE-isomers, expressed as DDT)	Fishmeal	0.05 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	0,020	Ok
	Fish Oil	0.5 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	0,073	0,320	Ok
Endosulfan (sum of alfa, beta-somers and sulphate)	Fishmeal	0.1 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	0.1 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	n.d.	Ok
Endrin	Fishmeal	0.01 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	0.05 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	n.d.	Ok
Heptachlor	Fishmeal	0.01 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	0.2 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	n.d.	Ok
HCB: Hexachlorbenzene	Fishmeal	0.01 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	0,004	Ok
	Fish Oil	0.2 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	0,044	Ok
HCH: Alfa-isomer	Fishmeal	0.02 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	0.2 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	n.d.	Ok

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HCH: Beta-isomer	Fishmeal	0.01 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	0,008	Ok
	Fish Oil	0.1 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	0,010	Ok
HCH: Gamma-isomer	Fishmeal	0.2 mg/kg	high	low		Periodic testing	Yearly	16	142	n.d.	n.d.	n.d.	Ok
	Fish Oil	2.0 mg/kg	high	low		Periodic testing	Yearly	8	71	n.d.	n.d.	n.d.	Ok
Arsenic (As)	Fishmeal	25 mg/kg	high	Medium		Periodic testing	Yearly	47	485	n.d.	4,47	23,82	Ok
	Fish Oil	25 mg/kg	high	low		Periodic testing	Yearly	8	32	3,00	8,43	12,58	Ok
Cadmium (Cd)	Fishmeal	2.0 mg/kg	high	low		Periodic testing	Yearly	16	460	n.d.	0,608	1,65	Ok
	Fish Oil	2.0 mg/kg	high	extra low		Periodic testing	Yearly	1	17	n.d.	n.d.	n.d.	Ok
Mercury (Hg)	Fishmeal	0.5 mg/kg	high	low		Periodic testing	Yearly	16	460	n.d.	0,063	0,280	Ok
	Fish Oil	0.5 mg/kg	high	extra low		Periodic testing	Yearly	1	17	n.d.	n.d.	n.d.	Ok
Lead (Pb)	Fishmeal	10 mg/kg	high	low		Periodic testing	Yearly	16	460	n.d.	0,315	1,60	Ok
	Fish Oil	10 mg/kg	high	extra low		Periodic testing	Yearly	1	17	n.d.	n.d.	0,19	Ok
Chromium (Cr)	Fishmeal	n.a.	medium	extra low		Periodic testing	Yearly	1	253	n.d.	1,088	5,90	Ok
	Fish Oil	n.a.	medium	extra low		Periodic testing	Yearly	1	16	n.d.	n.d.	n.d.	Ok
Fluorine/Fluoride	Fishmeal	500 mg/kg	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
	Fish Oil	500 mg/kg	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
Nitrites	Fishmeal	30 mg/kg	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
	Fish Oil	15 mg/kg	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok

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Melamine	Fishmeal	2.5 mg/kg	high	extra low		Periodic testing	Yearly	2	10	n.d.	n.d.	n.d.	Ok
	Fish Oil	2.5 mg/kg	high	n.a.		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
Aflatoxin B1	Fishmeal	0.02 mg/kg	high	n.a.		Periodic testing	Yearly	0	2	n.d.	n.d.	n.d.	Ok
	Fish Oil	n.a.	n.a.	n.a.		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
Dioxin	Fishmeal	1.25 ng/kg	high	high	CCP	Continuous monitoring	Positive release	Every batch	Every batch	n.d.	0,575	1,01	Ok
	Fish Oil	5,0 ng/kg	high	high	CCP	Continuous monitoring	Positive release	Every batch	Every batch	n.d.	1,02	3,85	Ok
Dioxinlike PCBs	Fishmeal	2.75 ng/kg	high	medium		Periodic testing	Yearly	47	53	0,100	0,716	1,49	Ok
	Fish Oil	15 ng/kg	high	medium		Periodic testing	Yearly	25	122	0,340	3,075	8,43	Ok
Non-dioxinlike PCBs	Fishmeal	30 ug/kg	high	medium		Periodic testing	Yearly	47	53	1,160	6,47	13,0	Ok
	Fish Oil	175 ug/kg	high	medium		Periodic testing	Yearly	25	122	1,740	46,03	125	Ok
PAH-4 (sum of benzo(a)pyrene, benzo(a)anthracene,	Fishmeal	n.a.	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
	Fish Oil	n.a.	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
DNA, animal/ruminat components	Fishmeal	Not present	high	low		Periodic testing	Yearly	16	99	n.d.	n.d.	n.d.	Ok
	Fish Oil	n.a.	n.a.	n.a.		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
Enterobacteriaceae	Fishmeal	300 kve/g	high	high	CCP	Continuous monitoring	Positive release	Every batch	Every batch	n.d.	n.d.	73	Ok
	Fish Oil	n.a.	n.a.	n.a.				0		n.a.	n.a.	n.a.	Ok
Salmonella	Fishmeal	0	high	high	CCP	Continuous monitoring	Positive release	Every batch	Every batch	n.d.	n.d.	n.d.	Ok
	Fish Oil	n.a.	n.a.	n.a.				0		n.a.	n.a.	n.a.	Ok

Contaminant	Product	Rejection limit	Severity	Likely occurence	CCP	Control measure	Sampling Plan	Required Sampling frequency (number of samples pr. year)	Number of samples analyzed in 2019	Lowest value of samples in 2019	Average value of samples in 2019	Highest value of samples in 2019	Evaluation
Moulds	Fishmeal	10.000 kve/g	medium	extra low		Periodic testing	Yearly	1	12	n.d.	n.d.	1100	Ok
	Fish Oil	n.a.	n.a.	n.a.				0	0	n.a.	n.a.	n.a.	Ok
Sum of Cs-134 and Cs-137 Isotopes	Fishmeal	n.a.	low	extra low		Periodic testing	Yearly	0	0	n.a.	n.a.	n.a.	Ok
	Fish Oil	n.a.	low	extra low				0	0	n.a.	n.a.	n.a.	Ok
Biogenic amine, Histamine	Fishmeal	n.a.	low	high		Periodic testing	Yearly	16	411	1,19	350	1600	Ok
Biogenic amine, Cadaverine	Fishmeal	n.a.	low	high				16	367	10	842	2400	Ok
Synthetic antixoidants BHA, BHT and Ethoxyquin (individual DL max. 1 mg/kg)	Naturox Fishmeal	5,0 mg/kg	low	low		Periodic testing	Yearly	3	130	n.d.	n.d.	3,9	Ok
	Naturox Fish Oil	5,0 mg/kg	low	extra low				2	22	n.d.	n.d.	1,5	Ok

n.a. = not applicable n.d. = not detected

Sampling frequency: Calculation of the required number of samples pr. year:

$$\frac{\sqrt{\text{Produced volume (Fishmeal=98.844 ton, Fish Oil=27.105 ton)}}}{100} \bullet \text{Severity (Low=1, Medium=3, High=5)} \bullet \text{Likely occcurence (Extra low=0,1, Low=1, Medium=3, High=5/Every batch)}$$

Source: GMP+BA4, Fact sheets and risk assessments

Fishmeal factor	3,14
Fish Oil factor	1,65

Fishmeal sampling frequency (3,14 x Severity x Likely occurance)

High	2	16	47	Every batch
Medium	1	9	28	47
Low	0	3	9	16
	Ekstra low	Low	Medium	High

Fish oil sampling frequency (1,65 x Severity x Likely occurance)

High	1	8	25	Every batch
Medium	0	5	15	25
Low	0	2	5	8
	Ekstra low	Low	Medium	High