

# **aokin** ReferenceMatrixMaterials

**ReferenceMatrixMaterials** from **aokin** consist of naturally contaminated matrices. All dry materials have been homogenized (by cross riffling or tumbling rotation) and tested for homogeneity.

They are manufactured under strict quality assurance and control and are characterized by laboratories in a proficiency testing round (Product code ....r) or by a minimum of five independent analyses (product code ....a).

The production is ISO 9001 certified.

1 unit = ca. 50 g / pack

We have additional materials in stock, please inquire for materials not listed, production will be started on request.

<b>Mycotoxin</b>	<b>Sample Type</b>	<b>Contamination [µg/kg]</b>	<b>units</b>	<b>Order No.</b>
<b>Aflatoxins</b>				
Aflatoxin	Almonds	total 197 ± 59	47	<a href="#">RMM-03-980r</a>
		B1 115,9 ± 33,1		
		B2 16,9 ± 4,8		
		G1 54,8 ± 18,6		
		G2 8,9 ± 2,5		
Aflatoxin	Animal Feed	total 16,00 ± 2,55	76	<a href="#">RMM-03-709a</a>
Aflatoxin	Animal Feed	total 19,11 ± 4,87	19	<a href="#">RMM-03-1553-1r</a>
		B1 16,78 ± 4,18		
		B2 1,13 ± 0,25		
		G1 < 1,00		
		G2 < 1,00		
Aflatoxin	Animal Feed	total 20,32 ± 11,7	22	<a href="#">RMM-03-1962r</a>
		B1 12,07 ± 7,5		
		B2 3,09 ± 1,4		
		G1 6,20 ± 2,7		
Aflatoxin	Animal Feed	total 33,80 ± 12,16	18	<a href="#">RMM-03-1673-1r</a>
		B1 19,40 ± 2,99		
		B2 3,02 ± 0,47		
		G1 8,85 ± 4,44		
		G2 2,09 ± 1,35		
Aflatoxin	Animal Feed	total 37,08 ± 19,48	14	<a href="#">RMM-03-1765r</a>
		B1 22,95 ± 8,01		
		B2 6,42 ± 1,92		
		G1 9,77 ± 3,30		
		G2 1,86 ± 0,56		
Aflatoxin	Coffee roasted	total 1,73 ± 0,52	67	<a href="#">RMM-03-340r</a>
Aflatoxin	Coffee roasted	total 3,09 ± 0,44	72	<a href="#">RMM-03-400a</a>
Aflatoxin	Corn	total < 1,00	20	<a href="#">RMM-03-1750-2r</a>
		B1 < 0,20		
		B2 < 0,10		
		G1 < 0,50		
		G2 < 0,20		

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Aflatoxin	Corn	total	1,95 ± 0,86	17	<a href="#">RMM-03-1850-1r</a>
		B1	1,66 ± 0,72		
		B2	< 0,50		
		G1	< 0,50		
		G2	< 0,50		
Aflatoxin	Corn	total	3,92 ± 1,18	27	<a href="#">RMM-03-828a</a>
Aflatoxin	Corn	total	6,88 ± 2,06	11	<a href="#">RMM-03-829a</a>
Aflatoxin	Corn	total	7,48 ± 2,24	31	<a href="#">RMM-03-808a</a>
Aflatoxin	Corn ca. 40 g	total	8,01 ± 3,5	7	<a href="#">RMM-03-1950r</a>
		B1	7,31 ± 3,2		
		B2	0,45 ± 0,2		
		G1	0,69 ± 0,3		
		G2	< 0,20		
Aflatoxin	Corn	total	9,21 ± 2,90	3	<a href="#">RMM-03-1550-2r</a>
		B1	5,99 ± 1,73		
		B2	0,51 ± 0,17		
		G1	2,21 ± 0,99		
		G2	0,26 ± 0,18		
Aflatoxin	Corn	total	10,50 ± 3,20	22	<a href="#">RMM-03-830a</a>
Aflatoxin	Corn	total	11,55 ± 4,11	19	<a href="#">RMM-03-1750-1r</a>
		B1	9,34 ± 3,72		
		B2	0,42 ± 0,18		
		G1	1,57 ± 0,55		
		G2	< 1,00		
Aflatoxin	Corn ca. 40 g	total	16,57 ± 9,83	28	<a href="#">RMM-03-2050r</a>
		B1	15,17 ± 9,12		
		B2	1,00 ± 0,48		
		G1	0,80 ± 0,40		
		G2	presence		
Aflatoxin	Corn	total	27,76 ± 8,64	38	<a href="#">RMM-03-1850-2r</a>
		B1	19,53 ± 5,46		
		B2	1,00 ± 0,27		
		G1	7,48 ± 4,35		
		G2	< 1,00		
Aflatoxin	Corn	total	66,56 ± 19,97	20	<a href="#">RMM-03-831a</a>
Aflatoxin	Corn/Almonds	total	13,43 ± 4,03	5	<a href="#">RMM-03-816a</a>
Aflatoxin	Durum wheat	total	< 2,10	16	<a href="#">RMM-03-1562-2r</a>
		B1	< 0,05		
		B2	< 1,00		
		G1	< 0,05		
		G2	< 1,00		
Aflatoxin	Durum wheat	total	12,51 ± 7,74	12	<a href="#">RMM-03-1562-1r</a>
		B1	7,70 ± 1,66		
		B2	1,11 ± 0,36		
		G1	3,42 ± 0,84		
		G2	< 1,00		
Aflatoxin	Hazelnuts	total	35,39 ± 18,73	2	<a href="#">RMM-03-1852-2r</a>
		B1	19,77 ± 11,42		
		B2	3,00 ± 1,32		
		G1	12,10 ± 7,52		

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		G2	1,67 ± 0,73		
Aflatoxin	Nutmeg	total	11,60 ± 3,48	5	<a href="#">RMM-03-706a</a>
Aflatoxin	Oats	total	12,5 ± 4,6	10	<a href="#">RMM-03-707a</a>
		B1	7,4 ± 2,7		
		B2	0,8 ± 0,3		
		G1	3,7 ± 1,4		
		G2	0,6 ± 0,2		
Aflatoxin	Paprika	total	15,80 ± 9,44	11	<a href="#">RMM-03-1752r</a>
		B1	9,40 ± 3,65		
		B2	1,24 ± 0,36		
		G1	3,64 ± 1,62		
		G2	1,19 ± 0,35		
Aflatoxin	Paprika	total	16,36 ± 9,7	18	<a href="#">RMM-03-1964r</a>
		B1	9,51 ± 4,2		
		B2	1,51 ± 0,7		
		G1	3,89 ± 1,7		
		G2	0,76 ± 0,3		
Aflatoxin	Peanuts	total	18,67 ± 10,88	19	<a href="#">RMM-03-2052r</a>
		B1	10,58 ± 6,71		
		B2	1,66 ± 0,73		
		G1	4,91 ± 2,16		
		G2	presence		
Aflatoxin	Pepper spice	total	2,24 ± 1,02	21	<a href="#">RMM-03-404a</a>
Aflatoxin	Pepper spice	total	2,45 ± 0,73	124	<a href="#">RMM-03-399a</a>
Aflatoxin	Pepper spice	total	30,02 ± 8,83	40	<a href="#">RMM-03-1462r</a>
		B1	17,42 ± 4,91		
		B2	2,36 ± 0,78		
		G1	8,45 ± 0,90		
		G2	1,56 ± 0,21		
Aflatoxin	Pistacchio	total	17,6 ± 10,3	19	<a href="#">RMM-03-1951r</a>
		B1	11,47 ± 7,1		
		B2	2,06 ± 0,9		
		G1	3,08 ± 1,4		
		G2	< 0,40		
Aflatoxin	Pistacchio	total	60,80 ± 21,39	7	<a href="#">RMM-03-1552r</a>
		B1	53,73 ± 16,04		
		B2	4,18 ± 1,82		
		G1	2,35 ± 1,47		
		G2	0,41 ± 0,17		
Aflatoxin	Wheat	total	3,89 ± 1,17	52	<a href="#">RMM-03-911a</a>
Aflatoxin	Wheat	total	10,10 ± 3,98	45	<a href="#">RMM-03-708a</a>
Aflatoxin	Milk	M1	< 0,01	40	<a href="#">RMM-31-181a</a>

Mycotoxin	Sample Type	Contamination [µg/kg]	units	Order No.
<b>Deoxynivalenol</b>				
Deoxynivalenol	Animal Feed	1010 ± 323	14	<a href="#">RMM-02-432r</a>
Deoxynivalenol	Barley	238 ± 87	29	<a href="#">RMM-02-363a</a>
Deoxynivalenol	Corn	195 ± 59	63	<a href="#">RMM-02-313r</a>
Deoxynivalenol	Corn	702 ± 281	23	<a href="#">RMM-02-2051r</a>
Deoxynivalenol	Corn	851 ± 341	10	<a href="#">RMM-02-1956r</a>
Deoxynivalenol	Corn	1300 ± 390	20	<a href="#">RMM-02-826a</a>
Deoxynivalenol	Corn	2600 ± 780	36	<a href="#">RMM-02-820a</a>
Deoxynivalenol	Corn	2685 ± 293	10	<a href="#">RMM-02-910a</a>
Deoxynivalenol	Corn	5792 ± 1150	6	<a href="#">RMM-02-909a</a>
Deoxynivalenol	Corn	5850 ± 1755	12	<a href="#">RMM-02-825a</a>
Deoxynivalenol	Corn	11394 ± 3418	12	<a href="#">RMM-02-908a</a>
Deoxynivalenol	Corn	16128 ± 2582	9	<a href="#">RMM-02-907a</a>
Deoxynivalenol	Corn	24794 ± 1861	18	<a href="#">RMM-02-906a</a>
Deoxynivalenol	Durum wheat	199 ± 53	12	<a href="#">RMM-02-1562-1r</a>
Deoxynivalenol	Durum wheat	893 ± 290	16	<a href="#">RMM-02-1562-2r</a>
Deoxynivalenol	Malt	938 ± 280	61	<a href="#">RMM-02-918a</a>
Deoxynivalenol	Oats	469 ± 140	10	<a href="#">RMM-02-707a</a>
Deoxynivalenol	Rice	288 ± 111	140	<a href="#">RMM-02-315r</a>
Deoxynivalenol	Triticale	4515 ± 1151	108	<a href="#">RMM-02-359r</a>
Deoxynivalenol	Wheat	< 100	123	<a href="#">RMM-02-348a</a>
Deoxynivalenol	Wheat	< 250	7	<a href="#">RMM-02-1671-2r</a>
Deoxynivalenol	Wheat	< 290	83	<a href="#">RMM-02-1463-1r</a>
Deoxynivalenol	Wheat	255 ± 75	173	<a href="#">RMM-02-420r</a>
Deoxynivalenol	Wheat	582 ± 233	12	<a href="#">RMM-02-1963r</a>
Deoxynivalenol	Wheat	828 ± 273	30	<a href="#">RMM-02-572a</a>
Deoxynivalenol	Wheat	1070 ± 339	13	<a href="#">RMM-02-529r</a>
Deoxynivalenol	Wheat	1107 ± 197	6	<a href="#">RMM-02-1671-1r</a>
Deoxynivalenol	Wheat	1516 ± 385	52	<a href="#">RMM-02-1463-2r</a>
Deoxynivalenol	Wheat	1597 ± 639	10	<a href="#">RMM-02-1862r</a>
Deoxynivalenol	Wheat ca. 40 g	1950 ± 585	22	<a href="#">RMM-02-715a</a>
Deoxynivalenol	Wheat	2437 ± 609	55	<a href="#">RMM-02-750a</a>
Deoxynivalenol	Wheat	6118 ± 958	52	<a href="#">RMM-02-911a</a>

Mycotoxin	Sample Type	Contamination [µg/kg]	units	Order No.
<b>Alkaloids</b>				
Ergometrin	Rye	5,0	61	<a href="#">RMM-80-211r</a>
Ergometrinin		3,3		
Ergosin		16,3		
Ergosinin		4,7		
Ergotamin		16,9		
Ergotaminin		15,0		
Ergocornin		7,9		
Ergocorninin		5,4		
α-Ergokryptin		6,5		
α- Ergokryptinin		1,1		
Ergocristin		11,3		
Ergocristinin		1,9		
<b>total</b>		<b>95,3 ± 4,7</b>		
<b>Alkaloids</b>				
Ergometrin	Rye	35,4	122	<a href="#">RMM-80-923r</a>
Ergometrinin		7,4		
Ergosin		66,2		
Ergosinin		28,5		
Ergotamin		93,8		
Ergotaminin		42,2		
Ergocornin		36,0		
Ergocorninin		10,8		
α-Ergokryptin		95,2		
α- Ergokryptinin		22,3		
Ergocristin		50,6		
Ergocristinin		19,6		
<b>total</b>		<b>508 ± 149</b>		

<b>Alkaloids</b>				
Ergometrin	Rye	56,9		
Ergometrinin		11,2		
Ergosin		80,3		
Ergosinin		39,0		
Ergotamin		164,0		
Ergotaminin		63,4		
Ergocornin		62,9		
Ergocorninin		20,2		
α-Ergokryptin		101,2		
α- Ergokryptinin		38,2		
Ergocristin		150,7		
Ergocristinin		44,4		
<b>total</b>		<b>832,5 ± 46</b>	115	<a href="#">RMM-80-922r</a>


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Mycotoxin	Sample Type		Contamination [µg/kg]	units	Order No.
<b>Fumonisin</b>					
Fumonisin	Corn	total	488 ± 174	63	<a href="#">RMM-05-313r</a>
Fumonisin	Corn	total	1170,7 ± 362,2	9	<a href="#">RMM-05-1851r</a>
		B1	935 ± 292		
		B2	245 ± 123		
Fumonisin	Corn ca. 40 g	total	1435 ± 574	28	<a href="#">RMM-05-2050r</a>
		B1	1175 ± 470		
		B2	296 ± 118		
Fumonisin	Corn	total	2085 ± 1042,5	3	<a href="#">RMM-05-1550-2r</a>
		B1	1755 ± 877,5		
Fumonisin	Corn ca. 40 g	total	2167 ± 867	7	<a href="#">RMM-05-1950r</a>
		B1	1680 ± 672		
		B2	411 ± 165		
Fumonisin	Corn	total	3428,7 ± 1714,3	19	<a href="#">RMM-05-1750-1r</a>
		B1	2545 ± 1272		
		B2	608 ± 210		
Fumonisin	Corn	total	21197 ± 6350	88	<a href="#">RMM-05-920r</a>
		B1	16480 ± 4940		
		B2	4717 ± 1410		
Fumonisin	Wheat	total	86431 ± 25900	70	<a href="#">RMM-05-921r</a>
		B1	69223 ± 20760		
		B2	17208 ± 5140		
Fumonisin	Rice	total	622 ± 214	133	<a href="#">RMM-05-314r</a>

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Mycotoxin	Sample Type	Contamination [µg/kg]	units	Order No.
<b>Ochratoxin</b>				
Ochratoxin	Animal Feed	A 17,1 ± 10,1	9	<a href="#">RMM-04-1553-2r</a>
Ochratoxin	Barley	A 6,31 ± 3,32	14	<a href="#">RMM-04-1563r</a>
Ochratoxin	Cocoa	A 4,46 ± 1,96	24	<a href="#">RMM-04-2053-2r</a>
Ochratoxin	Cocoa	A 8,30 ± 3,65	16	<a href="#">RMM-04-1952-2r</a>
Ochratoxin	Coffee green	A < 1	18	<a href="#">RMM-04-900a</a>
Ochratoxin	Coffee green	A 1,1 ± 0,3	1	<a href="#">RMM-04-901a</a>
Ochratoxin	Coffee green	A 5,12 ± 1,45	14	<a href="#">RMM-04-1753-1r</a>
Ochratoxin	Coffee green	A 7,36 ± 3,24	24	<a href="#">RMM-04-1952-1r</a>
Ochratoxin	Coffee green	A 9,01 ± 3,96	24	<a href="#">RMM-04-1554r</a>
Ochratoxin	Coffee green	A 10,24 ± 2,96	21	<a href="#">RMM-04-1663r</a>
Ochratoxin	Coffee roasted	A < 1,0	67	<a href="#">RMM-04-340r</a>
Ochratoxin	Coffee roasted	A 2,9 ± 0,9	4	<a href="#">RMM-04-902a</a>
Ochratoxin	Coffee roasted	A 5,73 ± 2,52	42	<a href="#">RMM-04-842a</a>
Ochratoxin	Coffee roasted	A 13,7 ± 4,1	2	<a href="#">RMM-04-905a</a>
Ochratoxin	Corn ca. 40 g	A 4,80 ± 2,11	28	<a href="#">RMM-04-2050r</a>
Ochratoxin	Corn ca. 40 g	A 6,65 ± 2,93	7	<a href="#">RMM-04-1950r</a>
Ochratoxin	Corn	A 43,2 ± 13,0	58	<a href="#">RMM-04-919r</a>
Ochratoxin	Paprika	A 5,80 ± 2,37	11	<a href="#">RMM-04-1752r</a>
Ochratoxin	Paprika	A 7,06 ± 3,1	18	<a href="#">RMM-04-1964r</a>





Mycotoxin	Sample Type	Contamination [µg/kg]	units	Order No.
<b>T-2/HT-2 toxin</b>				
T2/HT2	Barley	(sum value) 30 ± 10	29	<a href="#">RMM-78-363a</a>
T2/HT2	Corn	(sum value) < 10	86	<a href="#">RMM-78-361a</a>
T2/HT2	Corn	(sum value) < 10	63	<a href="#">RMM-78-313a</a>
T2/HT2	Durum Wheat	(sum value) 71,1 ± 21,3	2	<a href="#">RMM-78-435a</a>
T2/HT2	Durum Wheat	(sum value) 150 ± 64	3	<a href="#">RMM-78-428r</a>
T2/HT2	Durum Wheat	(sum value) 360 ± 134	2	<a href="#">RMM-78-433a</a>
T2/HT2	Oatmeal	(sum value) 20 ± 7	12	<a href="#">RMM-78-917r</a>
		T2 7 ± 5		
		HT2 13 ± 5		
T2/HT2	Rice	(sum value) < 10	140	<a href="#">RMM-78-315a</a>
T2/HT2	Rice	(sum value) 12 ± 5	133	<a href="#">RMM-78-314a</a>
T2/HT2	Triticale	(sum value) 13,4 ± 4,0	108	<a href="#">RMM-78-359a</a>
T2/HT2	Wheat	(sum value) 26,5 ± 16,8	3	<a href="#">RMM-78-427r</a>
T2/HT2	Wheat	(sum value) 155,2 ± 66	12	<a href="#">RMM-78-1963r</a>
		HT2 135,2 ± 58		
T2/HT2	Wheat	(sum value) 180 ± 83	3	<a href="#">RMM-78-845a</a>
		T2 150 ± 70		
		HT2 30 ± 13		

Mycotoxin	Sample Type	Contamination [µg/kg]	units	Order No.
<b>Zearalenone</b>				
Zearalenone	Animal Feed	2344 ± 703	14	<a href="#">RMM-01-432r</a>
Zearalenone	Barley	572 ± 260	29	<a href="#">RMM-01-363a</a>
Zearalenone	Corn	7 ± 1	15	<a href="#">RMM-01-1551-1r</a>
Zearalenone	Corn	118 ± 53	26	<a href="#">RMM-01-1863r</a>
Zearalenone	Corn	127 ± 38	1	<a href="#">RMM-01-1672-1r</a>
Zearalenone	Corn	160 ± 22	13	<a href="#">RMM-01-1551-2r</a>
Zearalenone	Corn	175 ± 30	63	<a href="#">RMM-01-313r</a>
Zearalenone	Corn	233 ± 102	23	<a href="#">RMM-01-2051r</a>
Zearalenone	Corn	238 ± 94	10	<a href="#">RMM-01-1956r</a>
Zearalenone	Corn	332 ± 100	10	<a href="#">RMM-01-910a</a>
Zearalenone	Corn	545 ± 163	86	<a href="#">RMM-01-361r</a>
Zearalenone	Corn	884 ± 265	6	<a href="#">RMM-01-909a</a>
Zearalenone	Corn	1688 ± 506	12	<a href="#">RMM-01-908a</a>
Zearalenone	Corn	6425 ± 1928	9	<a href="#">RMM-01-907a</a>
Zearalenone	Corn	11973 ± 3590	18	<a href="#">RMM-01-906a</a>
Zearalenone	Millet	252 ± 75	112	<a href="#">RMM-01-364r</a>
Zearalenone	Rice	57 ± 17	133	<a href="#">RMM-01-314r</a>
Zearalenone	Rice	248 ± 74	140	<a href="#">RMM-01-315a</a>
Zearalenone	Triticale	58 ± 18	57	<a href="#">RMM-01-533a</a>
Zearalenone	Triticale	77 ± 23	108	<a href="#">RMM-01-359r</a>
Zearalenone	Wheat	22 ± 12	35	<a href="#">RMM-01-572a</a>
Zearalenone	Wheat	383 ± 12	52	<a href="#">RMM-01-911a</a>