

Food Safety I:

Highly Purified Natural Toxins for Food Analysis

Chiron has built up a strong track record of supplying new reference standards during the past 25 years of operation. We are now proud to announce our extended offer of Highly Purified Natural Toxins for Food Analysis:

Mycotoxins



Plant toxins



Marine toxins



The basis of a good analytical method is the availability of appropriate standards of defined purity and concentration.

Our mission is to market highly purified toxin calibrants in crystalline as well as standardized solutions for chemical analysis, including internal standards.

Your benefits using our standards include

- ◇ Fast turnover time due to excellent service
- ◇ Guaranteed high and consistent quality
- ◇ Sufficient capacity to serve the market, and bulk quantities available on request
- ◇ Custom solutions on request.

Reference materials (RM) play an important role as they build the link between the Measurement result in the laboratory and international recognized standards in the Traceability chain. Our standards are made according to the general requirements of ISO 17025 and ISO guides 30-35.

Other relevant food analysis literature:

Food Safety I (BMF 29): Natural Toxins; Mycotoxins, Plant toxins and Marine toxins

Food Safety II (BMF 30): Food Contaminants

Food Safety III (BMF 31): Food Colours and Aroma

BMF 32 : Plasticizers, Phthalates and Adipates

BMF 20: PFCs (Perfluorinated compounds) including PFOS and PFOA

BMF 14: PCBs

BMF 15: PBDEs (flame retardants)

Pesticides: Biomarker Focus 33 and 34, and the Chiron catalogue 2008

(“The Biomarker Catalogue - The Collection of Reference Standards 2008”): Pages 367-372.

Fatty acid and FAME`s ; see the Chiron catalogue 2008, page 425-428

BMF = Biomarker Focus

Mycotoxins

Calibrant solutions, Neat standards, Matrix reference materials



2240.17-100-AN	3-Acetyldeoxynivalenol	3-AcDON	100 µg/mL in acetonitrile, 1 mL
2240.17-100-5AN	3-Acetyldeoxynivalenol	3-AcDON	100 µg/mL in acetonitrile, 5 mL
2240.17-5MG	3-Acetyldeoxynivalenol	3-AcDON	5 mg neat
2240.17-10MG	3-Acetyldeoxynivalenol	3-AcDON	10 mg neat
3630.17-25-AN	U{13C17}-3-Acetyl-dexoyynivalenol		25 µg/mL in acetonitrile, 1.2 mL
2247.17-100-AN	15-Acetyldeoxynivalenol	15-AcDON	100 µg/mL in acetonitrile, 1 mL
2247.17-100-5AN	15-Acetyldeoxynivalenol	15-AcDON	100 µg/mL in acetonitrile, 5 mL
2247.17-5MG	15-Acetyldeoxynivalenol	15-AcDON	5 mg neat
2247.17-10MG	15-Acetyldeoxynivalenol	15-AcDON	10 mg neat
2233.17-2-AN	Aflatoxin B1	AFB1	2 µg/mL in acetonitrile, 1 mL
2233.17-2-5AN	Aflatoxin B1	AFB1	2 µg/mL in acetonitrile, 5 mL
2234.17-050-AN	Aflatoxin B2	AFB2	0.5 µg/mL in acetonitrile, 1 mL
2234.17-050-5AN	Aflatoxin B2	AFB2	0.5 µg/mL in acetonitrile, 5 mL
2235.17-2-AN	Aflatoxin G1	AFG1	2 µg/mL in acetonitrile, 1 mL
2235.17-2-5AN	Aflatoxin G1	AFG1	2 µg/mL in acetonitrile, 5 mL
2236.17-050-AN	Aflatoxin G2	AFG2	0.5 µg/mL in acetonitrile, 1 mL
2236.17-050-5AN	Aflatoxin G2	AFG2	0.5 µg/mL in acetonitrile, 5 mL
2237.17-050-AN	Aflatoxin M1	AFM1	0.5 µg/mL in acetonitrile, 1 mL
2237.17-050-5AN	Aflatoxin M1	AFM1	0.5 µg/mL in acetonitrile, 5 mL
3769.17-1MG	Aflatoxin M2	AFM2	1 mg neat
8516-100-5dried	Agroclavine		100 µg/mL, dried down
2245.15-50-AN	Deepoxydeoxynivalenol	DOM-1	50 µg/mL in acetonitrile, 1 mL
2245.15-50-5AN	Deepoxydeoxynivalenol	DOM-1	50 µg/mL in acetonitrile, 5 mL
2239.15-100-AN	Deoxynivalenol	DON	100 µg/mL in acetonitrile, 1 mL
2239.15-100-5AN	Deoxynivalenol	DON	100 µg/mL in acetonitrile, 5 mL
2239.15-5MG	Deoxynivalenol	DON	5 mg neat
2239.15-10MG	Deoxynivalenol	DON	10 neat
3629.21-50-AN	Deoxynivalenol-3-glucoside		50 µg/mL in acetonitrile, 1 mL
3627.15-25-AN	U{13C15}-Deoxynivalenol		25 µg/mL in acetonitrile, 1.2 mL
3802-100G	Maize fluor, Deoxynivalenol		474 +/-30 µg/kg, 100 g
8531-100G	Wheat fluor, Deoxynivalenol		1062 +/-116 µg/kg, 100g
2249.19-100-AN	Diacetoxyscirpenol	DAS	100 µg/mL in acetonitrile, 1 mL
2249.19-100-5AN	Diacetoxyscirpenol	DAS	100 µg/mL in acetonitrile, 5 mL
3917.32-100-5dried	Ergocomine		100 µg/mL, 5 mL dried down
8518-100-5dried	Ergocristine		100 µg/mL, 5 mL dried down
3765.32-100-5dried	Ergocryptine		100 µg/mL in methanol, 1 mL
3765.32-100-5dried	Ergocryptine		100 µg/mL, 5 mL dried down
8519-100-5dried	Ergometrine		100 µg/mL, 5 mL dried down
8520-100-5dried	Ergosine		100 µg/mL, 5 mL dried down
8521-100-5dried	Ergotamine		100 µg/mL, 5 ml dried down
8522-100-AN	Fumagillin		100 µg/mL in acetonitrile, 1 mL
2244.34-50-MX	Fumonisin B1	FB1	50 µg/mL in acetonitrile/water, 1 mL
2244.34-50-5MX	Fumonisin B1	FB1	50 µg/mL in acetonitrile/water, 5 mL
2244.34-5MG	Fumonisin B1	FB1	5 neat

2244.34-10MG	Fumonisin B1	FB1	10 neat
3625.34-25-AN	U{13C34}-Fumonisin B1		25 µg/mL in acetonitrile, 1.2 mL
2246.34-50-MX	Fumonisin B2	FB2	50 µg/mL in acetonitrile/water, 1 mL
2246.34-50-5MX	Fumonisin B2	FB2	50 µg/mL in acetonitrile/water, 5 mL
8535.34-10-AN	U{13C34}-Fumonisin B2		10 µg/mL in acetonitrile, 1.2 mL
8532-100G	Maize flour, Fumonisin B1 + B2		2406 +/-612 µg/kg; 630 +/-116 µg/kg; 100 g
3626.34-50-MX	Fumonisin B3	FB3	50 µg/mL in acetonitrile/water, 1 mL
8536.34-10-AN	U{13C34}-Fumonisin B3		10 µg/mL in acetonitrile, 1.2 mL
2243.17-100-AN	Fusarenon-X	FusX	100 µg/mL in acetonitrile, 1 mL
2243.17-100-5AN	Fusarenon-X	FusX	100 µg/mL in acetonitrile, 5 mL
2243.17-5MG	Fusarenon-X	FusX	5 mg neat
2243.17-10MG	Fusarenon-X	FusX	10 neat
8523-100-AN	Gliotoxin		100 µg/mL in acetonitrile, 1 mL
2248.22-100-AN	HT-2 Toxin	HT-2	100 µg/mL in acetonitrile, 1 mL
2248.22-100-5AN	HT-2 Toxin	HT-2	100 µg/mL in acetonitrile, 5 mL
3635.22-25-AN	U{13C22}-HT-2 Toxin		25 µg/mL in acetonitrile, 1.2 mL
8524-100-AN/WA	Moniliformin		100 µg/mL in acetonitrile/water, 1 mL
8376-100-AN	Mycophenolic acid		100 µg/mL in acetonitrile, 1 mL
8376-100-5AN	Mycophenolic acid		100 µg/mL in acetonitrile, 5 mL
2242.19-100-AN	Neosolaniol	NEO	100 µg/mL in acetonitrile, 1 mL
2242.19-100-5AN	Neosolaniol	NEO	100 µg/mL in acetonitrile, 5 mL
2242.19-5MG	Neosolaniol	NEO	5 mg neat
2242.19-10MG	Neosolaniol	NEO	10 mg neat
2230.15-100-AN	Nivalenol	NIV	100,µg/mL in acetonitrile, 1 mL
2230.15-100-5AN	Nivalenol	NIV	100 µg/mL in acetonitrile, 5 mL
2230.15-5MG	Nivalenol hydrate	NIV	5 mg neat
2230.15-10MG	Nivalenol hydrate	NIV	10 mg neat
2231.20-10-AN	Ochratoxin A		10 µg/mL in acetonitrile, 1 mL
2231.20-10-5AN	Ochratoxin A		10 µg/mL in acetonitrile, 5 mL
2231.20-5MG	Ochratoxin A		5 mg neat
2231.20-10MG	Ochratoxin A		10 mg neat
8533-100G	Wheat Flour, Ochratoxin A		2. 7 +/-1.0 µg/kg, 100g
8525-10-AN	Ochratoxin B		10 µg/mL in acetonitrile, 1 mL
8526-10-AN	Ochratoxin-alpha		10 µg/mL in acetonitrile, 1 mL
2232.7-100-AN	Patulin		100 µg/mL in acetonitrile, 1 mL
2232.7-100-5AN	Patulin		100 µg/mL in acetonitrile, 5 mL
8527-100-AN	Paxilline		100 µg/mL in acetonitrile, 1 mL
8528-100-AN	Penicillic acid		100 µg/mL in acetonitrile, 1 mL
8378-50-AN	Sterigmatocystin		50 µg/mL in acetonitrile, 1 mL
8378-50-5AN	Sterigmatocystin		50 µg/mL in acetonitrile, 5 mL
3633.15-50-AN	T-2 Tetraol		50 µg/mL in acetonitrile, 1 mL
2241.25-100-AN	T-2 Toxin	T-2	100 µg/mL in acetonitrile, 1 mL
2241.25-100-5AN	T-2 Toxin	T-2	100 µg/mL in acetonitrile, 5 mL

2241.25-5MG	T-2 Toxin	T-2	5 mg neat
2241.25-10MG	T-2 Toxin	T-2	10 mg neat
3634.24-25-AN	U{13C24}-T-2 Toxin		25 µg/mL in acetonitrile, 1.2 mL
3632.20-50-AN	T-2 Triol		50 µg/mL in acetonitrile, 1 mL
8376.15-25-AN	Verrucarol		25 µg/mL in acetonitrile, 1 mL
8529-100-AN	Verruculogen		100 µg/mL in acetonitrile, 1 mL
8530-100-AN	Wortmannin		100 µg/mL in acetonitrile, 1 mL
8517-10-AN	α -Zearalanol	Zeranol	10 µg/mL in acetonitrile, 1 mL
2250.18-10-5AN	α -Zearalenol		10 µg/mL in acetonitrile, 1 mL
2796.18-10-AN	β -Zearalanol	Taleranol	10 µg/mL in acetonitrile, 1 mL
2251.18-10-AN	β -Zearalenol		10 µg/mL in acetonitrile, 1 mL
2252.18-10-AN	Zearalanone		10 µg/mL in acetonitrile, 1 mL
2238.18-100-AN	Zearalenone	ZON	100 µg/mL in acetonitrile, 1 mL
2238.18-100-5AN	Zearalenone	ZON	100 µg/mL in acetonitrile, 1 mL
2238.18-5MG	Zearalenone	ZON	5 mg neat
2238.18-10MG	Zearalenone	ZON	10 mg neat
3803-100G	Maize fluor, Zearalenone		60 +/-9 µg/kg, 100g

Mycotoxin calibrant mixtures

S-4296-2-AN	MIX 1 Aflatoxins mixture, 1 mL	Mixture in acetonitrile, 1 mL
	AFB1&AFG1, AFB2&AFG2	2 µg/mL; 0,5 µg/mL
S-4296-2-5AN	MIX 1 Aflatoxins mixture, 5 mL	Mixture in acetonitrile, 5 mL
S-4297-100-AN	MIX 2 B-Trichothecenes mixture, 1 mL	100 µg/mL each in acetonitrile, 1 mL
	DON, NIV, 3AcDON & 15-DON	
S-4297-100-5AN	MIX 2 B-Trichothecenes mixture, 5 mL	100 µg/mL each in acetonitrile, 5 mL
S-4298-50-MX	MIX 3 Fumonisin mixture, 1 mL	50 µg/mL in acetonitrile/water, 1 mL
	FB1&FB2	
S-4298-50-5MX	MIX 3 Fumonisin mixture, 5 mL	50 µg/mL in acetonitrile/water, 5 mL
	FB1&FB2	
S-4531-10-AN	MIX 4 A+B-Trichothecenes+Zearalenone	10 µg/mL each in acetonitrile, 1 mL
	3AcDON, DON, NIV, FusX,	
	HT-2, T-2, DAS, ZON	
S-4531-10-5AN	MIX 4 A+B-Trichothecenes+Zearalenone	10 µg/mL each in acetonitrile, 5 mL
S-4532-025-AN	MIX 5 Aflatoxins mixture, 1 mL	0.25 µg/mL each in acetonitrile, 1 mL
	AFB1&AFG1; AFB2&AFG2	
S-4532-025-5AN	MIX 5 Aflatoxins mixture, 5 mL	0.25 µg/mL each in acetonitrile, 5 mL
S-4533-100-5dried	MIX 6 Ergot alkaloids mixture	100 µg/mL, 5 mL dried down
	Ergocornine, Ergocristine, Ergocryptine,	
	Ergometrine, Ergosine, Ergotamine	

Plant and other natural toxins in food



	<i>Toxic pyrrolizidine alkaloids</i>		
3914.16	Crotaline	Monocrotaline	Please inquire
8021.16	Heliotrine		Please inquire
8035.21	Lasiocarpine		Please inquire
3817.18-100-ME	Retrocine		100 µg/mL in methanol, 1 mL
3818.18-100-ME	Senecionine		100 µg/mL in methanol, 1 mL
3819.18-100-ME	Seneciophylline		100 µg/mL in methanol, 1 mL
	Solanine		
3865.45-2MG	Solanine		2 mg neat
3865.45-100-AC	Solanine		100 µg/mL in acetonitrile, 1 mL
3866.27-10MG	Solanidine		10 mg neat
	Coumarin		
3867.9-K-ME	Coumarin		1000 µg/mL in methanol, 1 mL
3868.9-K-ME	Coumarin-d4		1000 µg/mL in methanol, 1 mL
3869.9-1ML	Cinnamaldehyde		1 mL neat
3870.7-1ML	Benzaldehyde		1 mL neat
3900.10-1ML	Eugenol		1 mL neat
3872.5-KIT	Coumarin Kit		One of each above



Marine toxins

	<i>Algae and shellfish toxins</i>		
	<i>Amnesic shellfish (ASP) toxins</i>		
3692.15-100-05MX	Domoic acid	CRM-DA-e	99.4 µM in acetonitrile/water, 0.5 mL
3693.15-40-8G	<i>Mytilus edulis</i> , homogenized (Domoic acid)	CRM-ASP-Mus-c	41 µg/g, homogenized mussel, 8 g
3694-100-15G	<i>Mytilus edulis</i> , homogenized (Domoic acid)	RM-ASP-Mus	98 µg/g, homogenized mussel, 15 g
	<i>Diarrhetic shellfish (DSP) and lipophilic toxins</i>		
3695.44-20-05ME	Okadaic acid	CRM-OA-b	17.7 µM in methanol, 0.5 mL
3696.44-4G	Blue mussel, homogenized (Okadaic acid)	CRM-DSP-Mus-b	10.1 µg/g, homogenized blend, 4 g
3697.45-100UG	Dinophys toxin 1		100 µg neat
3698.X-10-05ME	Pectenotoxin	CRM-PTX2	10.0 µM in methanol, 0.5 mL
3700.42-10-05ME	13-Desmethyl spirolide C	CRM-SPX1	10.2 µM in methanol, 0.5 mL
3701.32-10-05ME	Gymnodimine	CRM-GYM	9.9 µM in methanol, 0.5 mL
3702.55-5-05ME	Yessotoxin	CRM-YTX	4.6 µM in methanol, 0.5 mL
8202.X-1-05ME	Azaspirazide 1	CRM-AZA1	1.47 µM/L in methanol, 0.5 mL
	<i>Paralytic shellfish (PSP) toxins</i>		
3703.10-60-05HC	Saxitoxin dihydrochloride	CRM-STX-e	65 µM in 10 ⁻³ M HCl, 0.5 mL
3704.10-60-05HC	Neosaxitoxin	CRM-NEO-b	65 µM in 10 ⁻³ M HCl, 0.5 mL
3705.-60-05HC	Descarbamoylsaxitoxin	CRM-dcSTX	62 µM in 10 ⁻³ M HCl, 0.5 mL
3706.10-05HC	Gonyautoxin-1 and -4	CRM-GTX1&4-b	106+35 µM HCl/acetic acid, 0.5 mL
3707.10-05HC	Gonyautoxin-2 and -3	CRM-GTX2&3-b	118+39 µM in HCl/acetic acid, 0.5 mL
3708.10-60-05HC	Gonyautoxin-5 (akaB1)	CRM-GTX5-b	65 µM in HCl(aq) pH5, 0.5 mL
3709.X-140-05HC	Descarbamoylgonyautoxin-2 and -3	CRM-dcGTX2&3	114+32 µM in HCl/acetic acid, 0.5 mL
3710.X-30-05W	Descarbamoylneosaxitoxin	CRM-dcNEO	30 µM in water
3711.X-140-05HC	N-Sulfocarbamoyl-gonyautoxin-2 and -3	CRM-C1&2	114+35 µM in HCl(aq) pH5, 0.5 ml
	<i>Freshwater / cyanobacterial toxins</i>		
3712.15-30-05W	Cylindrospermopsin	CRM-CYN	30 µM in water, 0.5 mL
2552.10-1MG	(+/-)-Anatoxin A, fumarate		1 mg neat

