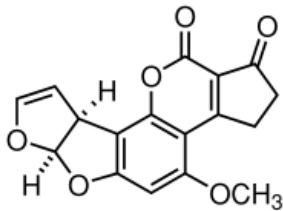
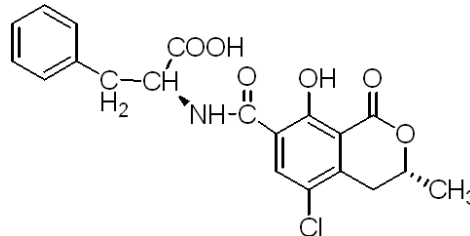


## AFLA OTA FUM

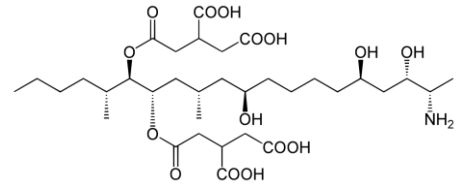
for analysis of Aflatoxin total (AFLA), Ochratoxin A (OTA) and Fumonisin total (FUM) in Corn



Aflatoxin B1 (AFLA)



Ochratoxin A (OTA)



Fumonisin B1 (FUM)

### Specification

Lot No.	3452500221025275
Matrix Type	Corn
Analyte	Aflatoxin total (AFLA), Ochratoxin A (OTA), Fumonisin total (FUM)
Weight/Volume	50 g
Storage	-18 °C
Retest	10/2025

	Concentration $x_{PT}$ [ $\mu\text{g}/\text{kg}$ ]	data points n	satisfactory range $x_{PT} \pm 2 \sigma_{PT}$ [ $\mu\text{g}/\text{kg}$ ]	uncertainty* $2 u(x_{PT})$ [ $\mu\text{g}/\text{kg}$ ]
Aflatoxin B1	46,35	23	22,80 - 69,90	7,24
Aflatoxin B2	3,39	21	1,73 - 5,05	0,72
Aflatoxin G1	presence**	12	nd	nd
Aflatoxin G2	presence***	7	nd	nd
Aflatoxin total	49,03	23	24,33 - 73,73	8,02
Ochratoxin A	4,38	20	2,19 - 6,58	0,64
Fumonisin B1	1025,39	14	584,23 - 1466,55	162,46
Fumonisin B2	302,15	14	166,46 - 437,84	61,68
Fumonisin total	1340,99	14	804,59 - 1877,39	198,38

\*Expanded uncertainty with  $k=2$  for approximately 95% level of confidence (PA/PH/OMCL(18)153R1 CORR Evaluation of Measurement Uncertainty - Annex 2.5).

\*\*It was not possible to assign a value or an uncertainty due to a bimodal distribution of data. Arithmetic mean was 2,25  $\mu\text{g}/\text{kg}$ . \*\*\*It was not possible to assign a value or an uncertainty due to a bimodal distribution of data. Arithmetic mean was 0,81  $\mu\text{g}/\text{kg}$ .

## Comments

**aokin** reference matrix material is naturally contaminated and homogenized. Concentration of the analyte is determinate in a proficiency round. Unweighted mean value of the means of accepted sets of data, each set being obtained in a different laboratory and/or with a different method of determination such as HPLC-MS/MS, HPLC/FLD, LC-MS/MS, UHPLC-MS/MS, HPLC-RF, LC-MS/MS, UHPLC.

The certified value and its uncertainty are traceable to the International System of Units (SI) as chemical mass fraction as µg/kg. The assigned value, the satisfactory range and the expanded uncertainty are given.

The minimum amount of sample to be used is 10 g.

## Calculation of the assigned value $x_{PT}$

The Assigned Value is the value attributed to a particular property of interlaboratory proficiency test (definition from ISO13528:2016).  $x_{PT}$  is derived from participants quantitative results obtained with confirmatory analysis. The procedure for determining is from the Algorithm A (ISO 13528:2016) or from the median.

The standard uncertainty is expanded by a factor  $f = 1,25$  and is calculated as:

$$u(x_{PT}) = f \frac{\sigma_{PT}}{\sqrt{n}} \text{ (uncertainty of the characterization)}$$

where:

- $\sigma_{PT}$  is the robust estimate of the participant standard deviation;
- $\sigma_{PT} = b \cdot x_{PT}$  where  $b$  is the relative robust estimate of the participant standard deviation
- $n$  is the number of participants used in calculating the robust assigned values.

The satisfactory range is calculated from the expanded ( $k=2$ ) standard deviation of the proficiency assessment:

The satisfactory range equals  $x_{PT} \pm 2 \sigma_{PT}$ .