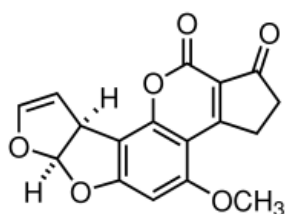
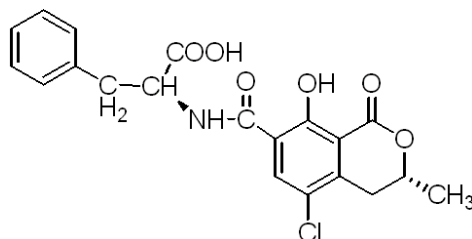


AFLA OTA

for analysis of Aflatoxin total (AFLA)
and Ochratoxin A (OTA) in Paprika



Aflatoxin B1 (AFLA)



Ochratoxin A (OTA)

Specification

Lot No.	345705260217275
Matrix Type	Paprika
Analyte	Aflatoxin total (AFLA), Ochratoxin A (OTA)
Weight/Volume	50 g
Storage	-18 °C
Shipping	ambient
Retest	02/2029

	Concentration x_{PT} [µg/kg]	data points n	satisfactory range*** $x_{PT} \pm 2 \sigma_{PT}$ [µg/kg]	uncertainty* $2 u(x_{PT})$ [µg/kg]
Aflatoxin B1	presence**	16	nd	nd
Aflatoxin B2	1,28	15	0,58- 1,97	0,28
Aflatoxin G1	2,74	15	1,23 - 4,25	0,64
Aflatoxin G2	0,64	13	0,26 - 1,02	0,20
Aflatoxin total	11,22	16	3,83 - 18,60	2,18
Ochratoxin A	7,35	15	3,44 - 11,25	1,34

*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 high uncertainty. Arithmetic mean was 6,55 µg/kg for Aflatoxin B1.

***If $u(x_{PT}) \geq 0.3 \sigma_{PT}$ the standard uncertainty of the assigned value is included in the assessments.

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/FLD, HPLC/UV, HPLC-MS/MS, HPLC/FLD, HPLC/DAD, LC-MS/MS, UHPLC-MS/MS, Fluorimetric assay, ELISA.

The certified value and its uncertainty are traceable to the International System of Units (SI) as chemical mass fraction as $\mu\text{g/kg}$. 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:

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

where:

- σ_{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 $x_{PT} \pm 2 \sigma_{PT}$. If $u(x_{PT}) \geq 0.3 \sigma_{PT}$ the standard uncertainty of the assigned value is included in the assessments.