Deoxynivalenol Standard (solid)
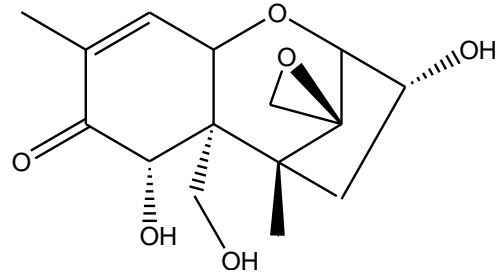
Order-No: CH-02-S1

Lot: xxx xxx xxx xxx

Analyte: Deoxynivalenol (DON)

Specification:

Substance:	Deoxynivalenol
Source:	*Fusarium spec.*
Empirical Formula:	$C_{15}H_{20}O_6$
Appearance:	White with faint yellow powder
Solubility:	10mg/ ml Methanol/ ETOAC: Clear colorless solution, may be soluble in other solvents
Melting point:	155°C
Molecular Weight:	296,32
Approved:	TLC, detection: spray with H_2SO_4 and heat; TLC (NP, CH_2Cl_2, Methanol 95:5) >99% TLC (NP, Toluene, Ethyl acetate 1:3) >99% TLC (RP C18, Methanol, H_2O 9:1) >99% HPLC; HPLC (RP C18, CH_3CN: H_2O 0%=>100% in 20 min, 220nm) >99.72%
CAS-No.:	51481-10-8
Weight:	1,0 mg
Expiry date:	1 year after delivery
Storage conditions:	-20 °C
Certification:	The calibrant is certified on the basis of gravimetric preparation. Values are based on weight amount and purity. Uncertainty < 0,03 mg in accordance with ISO Guide 31, ISO Guide 35 and Eurachem/CITAG Guides.

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Subject to change without notice.   *aokin AG*   *FB-312-02-R9*

aokin is ISO 9001 certified and works according to GLP and ISO 17025.

Calculation of uncertainty:

(After the concentration of the gravimetric prepared solution was confirmed by kinetic fluorescent polarization, the uncertainty of the calibrant solution was calculated on the basis of preparation)
Calculation of the combined uncertainty u_c and the expanded standard uncertainty U:

Uncertainty components	Description	Standard uncertainty (u)	
Purity (P) of solid Dexynivalenol	P = 99.72% ± 0.6%	u(P) = 0.4%	a
Weighing procedure weighted sample: m_{ws} = 1.0 mg	repeatability: 0.03 mg linearity: 0.01 mg	u(m) = 0.03 mg	b

[a] Maximum tolerance of purity (rectangular distribution) was divided by $\sqrt{3}$
[b] Estimation of this u-value is based upon the values for repeatability and linearity described in the user manual of the microbalance

Calculation of the combined uncertainty u_c and the expanded standard uncertainty U:

$$\frac{u_c\,(c_{toxin})}{c_{toxin}} = \sqrt{\left[\frac{u\,(P)}{P}\right]^2 + \left[\frac{u\,(m)}{m_{ws}}\right]^2} = \sqrt{\left[\frac{0.4}{99.72}\right]^2 + \left[\frac{0.03}{1.0}\right]^2} = 0.02997$$

Danger

Contains: Deoxynivalenol

Weight: 1 mg

Danger

H300		Fatal if swallowed
P264		Wash … thoroughly after handling
P301 + P310		IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. lenses, if present and easy to do. Continue rinsing.

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