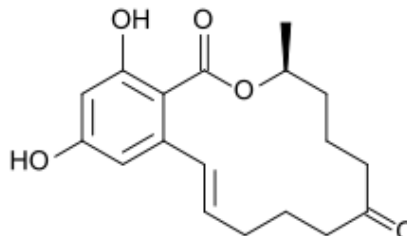


**Zearalenone Standard (solid)**

**Order-No: CH-01-S5**

Lot: xxx xxx xxx xxx



Analyte: Zearalenone (ZON)

**Specification:**

- Substance: Zearalenone
- Source: *Giberella zeae*
- Empirical Formula: C<sub>18</sub>H<sub>22</sub>O<sub>5</sub>
- Appearance: Off-white powder
- Solubility: 5mg/ ml Methanol, clear colorless solution, may be soluble in other solvents
- Melting point: 166°C
- Molecular Weight: 318,36
- Approved: TLC, detection: spray with H<sub>2</sub>SO<sub>4</sub> and heat;  
 TLC (NP, DCM, Acetonel 95:5) 99%  
 TLC (RP C18, Methanol, H<sub>2</sub>O 9:1) >99%
- HPLC;  
 HPLC (RP C18, 250x4.6, Gradient, 316nm) >99.24%
- CAS-No.: 17924-92-4
- Weight: 5,0 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 < 0,007 mg in accordance with ISO Guide 31, ISO Guide 35 and Eurachem/CITAG Guides.



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 Zearalenone	P = 99.24% ± 0.6%	u(P) = 0.4%	a
Weighing procedure weighted sample: $m_{ws} = 5,0$ mg	repeatability: 0.03 mg linearity: 0.01 mg	u(m) = 0.03 mg	b

<sup>a</sup> Maximum tolerance of purity (rectangular distribution) was divided by  $\sqrt{3}$   
<sup>b</sup> 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  $U$ :

$$\frac{u_c(c_{toxin})}{c_{toxin}} = \sqrt{\left[\frac{u(P)}{P}\right]^2 + \left[\frac{u(m)}{m_{ws}}\right]^2} = \sqrt{\left[\frac{0.4}{99.24}\right]^2 + \left[\frac{0.03}{5,0}\right]^2} = 0.007$$

 Danger	H300 P264 P301 + P310	<p><b>Danger</b></p> Contains: Zearalenone Volume: 5 mg Fatal if swallowed Wash ... thoroughly after handling IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. lenses, if present and easy to do. Continue rinsing. Aokin AG – 13125 Berlin Tel: +49 (0) 3094892160
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