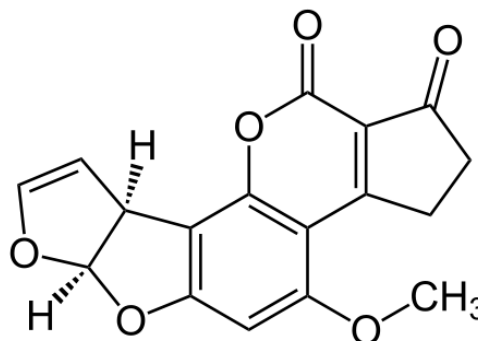


**Aflatoxin B1 Standard (solid)**

**Order-No: CH-031-S1**

Lot: xxx xxx xxx xxx




Analyte: Aflatoxin B1 (AFLA B1)

**Specification:**

Substance: Aflatoxin B1  
 Source: *Aspergillus flavus*  
 Empirical Formula: C<sub>17</sub>H<sub>12</sub>O<sub>6</sub>  
 Appearance: White powder  
 Solubility: Clear colorless solution at 10 mg/ml CH<sub>2</sub>Cl<sub>2</sub>  
 Melting point: 268 - 269°C  
 Molecular Weight: 312,3  
 Approved: TLC (NP; CH<sub>2</sub>Cl<sub>2</sub>; Acetone 93:7) >99%  
 TLC (RP C18, Methanol: H<sub>2</sub>O 9:1) >99%  
 (Detection: Spray with H<sub>2</sub>SO<sub>4</sub> and heat)  
 HPLC (isocratic, 362nm) 100%  
 HPLC (Gradient H<sub>2</sub>O → ACN, 362nm) 100%  
 CAS-No.: 1162-65-8  
 Weight: 1,00 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.

<p>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 <math>u_c</math> and the expanded standard uncertainty <math>U</math>:</p>	<table border="1"> <thead> <tr> <th>Uncertainty components</th> <th>Description</th> <th>Standard uncertainty (u)</th> <th></th> </tr> </thead> <tbody> <tr> <td>Purity (P) of solid Aflatoxin</td> <td>P = 100%</td> <td><math>u(P) = 0.4\%</math></td> <td>a</td> </tr> <tr> <td>Weighing procedure weighted sample: <math>m_{ws} = 1,00</math> mg</td> <td>repeatability: 0.03 mg linearity: 0.01 mg</td> <td><math>u(m) = 0.03</math> mg</td> <td>b</td> </tr> </tbody> </table>	Uncertainty components	Description	Standard uncertainty (u)		Purity (P) of solid Aflatoxin	P = 100%	$u(P) = 0.4\%$	a	Weighing procedure weighted sample: $m_{ws} = 1,00$ mg	repeatability: 0.03 mg linearity: 0.01 mg	$u(m) = 0.03$ mg	b
	Uncertainty components	Description	Standard uncertainty (u)										
Purity (P) of solid Aflatoxin	P = 100%	$u(P) = 0.4\%$	a										
Weighing procedure weighted sample: $m_{ws} = 1,00$ mg	repeatability: 0.03 mg linearity: 0.01 mg	$u(m) = 0.03$ mg	b										
<p>Calculation of the combined uncertainty <math>u_c</math> and the expanded standard uncertainty <math>U</math>:</p> $\frac{u_c(c_{toxin})}{c_{toxin}} = \sqrt{\left[\frac{u(P)}{P}\right]^2 + \left[\frac{u(m)}{m_{ws}}\right]^2} = \sqrt{\left[\frac{0.4}{100}\right]^2 + \left[\frac{0.03}{1,00}\right]^2} = 0.0303$	<p><sup>a</sup> Maximum tolerance of purity (rectangular distribution) was divided by <math>\sqrt{3}</math> <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</p>												

 <p>Danger</p>	<p>H300 H310 H330 H350</p>	<p>Fatal if swallowed Fatal in contact with skin Fatal if inhaled May cause cancer</p>
	<p>P201 P260 P264 P280 P284</p>	<p>Obtain special instructions before use Do not breathe dust/ fume/ gas/ mist/ vapours/ spray Wash hands thoroughly after handling Wear protective gloves/ protective clothing Wear respiratory protection</p>

<p><b>Danger</b></p> <p>Contains: Aflatoxin B1</p> <p>Volume: 1 mg</p> <p>P301 + P310</p>	<p>IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician</p>
---	---

<p>Aokin AG – 13125 Berlin Tel: +49 (0) 3094892160</p>
--