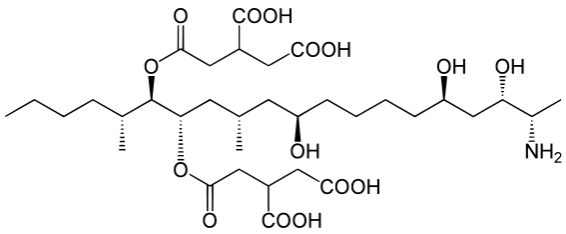
Fumonisin B1 Standard (solid)

Order-No: CH-051-S1
Lot: xxx xxx xxx xxx



Analyte: Fumonisin B1 (FUM)

Specification:

Substance:	Fumonisin B1	
Source:	*Fusarium moniliforme*	
Empirical Formula:	$C_{34}H_{59}NO_{15}$	
Appearance:	Off-white powder	
Solubility:	Clear colorless solution at 5 mg/ml MeOH	
Molecular Weight:	721,83	
Approved:	TLC (CH_2Cl_2 : Methanol : HOAC : H_2O 60:40:1:9) TLC (RP C18, Methanol : KCl 4% 4:1)	98% 98%
CAS-No.:	116355-83-0	
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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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 Fumonisin	P = 98.0%	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:

$$\frac{u_c\,(c_{toxin})}{c_{toxin}} = \sqrt{\left[\frac{u\,(P)}{P}\right]^2 + \left[\frac{u\,(m)}{m_{ws}}\right]^2} = \sqrt{\left[\frac{0.4}{98}\right]^2 + \left[\frac{0.03}{1.0}\right]^2} = 0.03$$

Danger

Danger

Contains: Fumonisin B1

Volume: 1 mg

H351 Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

P281 Use personal protective equipment as required.

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