



Joint Research Centre

Certified reference materials for testing of mycotoxins



Trichothecenes

Code	Material	Certified value
IRMM-315	4-deoxynivalenol (DON) in acetonitrile, 4 mL	25.1 ± 1.2 µg/g
IRMM-316	Nivalenol (NIV) in acetonitrile, 4 mL	24.0 ± 1.1 µg/g
BCR-377	4-deoxynivalenol (DON) in maize flour, 150 g	< 0.05 mg/kg
BCR-396	4-deoxynivalenol (DON) in wheat flour, 150 g	< 0.05 mg/kg
ERM-BC717	deoxynivalenol (DON) nivalenol (NIV) in maize, 60 g	673 ± 87 µg/kg 53 ± 10 µg/kg

Zearalenone, Ochratoxin A

Code	Material	Certified value
ERM-AC699	zearalenone (ZON) in acetonitrile, 4 mL	9.95 ± 0.30 µg/ml
ERM-BC716	zearalenone (ZON) in maize, 60 g	< 5 µg/kg
ERM-BC717	zearalenone (ZON) in maize, 60 g	83 ± 9 µg/kg
BCR-471	ochratoxin A (OTA) in wheat, 55 g	< 0.6 µg/kg

Aflatoxin M₁

Code	Material	Certified value
BCR-423	aflatoxin M ₁ in chloroform, 2.5 mL	9.93 µg/ml (not certified)
ERM-BD282	whole milk powder (zero level), 30 g	< 0.02 µg/kg
ERM-BD283	whole milk powder (low level), 30 g	0.111 ± 0.018 µg/kg
ERM-BD284	whole milk powder (high level), 30 g	0.44 ± 0.06 µg/kg

Confidence in measurements

All certificates and detailed production information can be found at <https://crm.irmm.jrc.ec.europa.eu>



Accredited CRM Producer: the JRC-IRMM is accredited to ISO Guide 34:2009 for the production of reference materials under the code BELAC 268-RM

<https://ec.europa.eu/jrc/>



Aflatoxins B₁, G₁, B₂ and G₂

Code	Material	Certified value
ERM-AC057	aflatoxin B ₁ in acetonitrile, 4 mL	Aflatoxin B ₁ 3.79 ± 0.11 µg/g
ERM-AC058	aflatoxin B ₂ in acetonitrile, 4 mL	Aflatoxin B ₂ 3.80 ± 0.08 µg/g
ERM-AC059	aflatoxin G ₁ in acetonitrile, 4 mL	Aflatoxin G ₁ 3.78 ± 0.13 µg/g
ERM-AC060	aflatoxin G ₂ in acetonitrile, 4 mL	Aflatoxin G ₂ 3.80 ± 0.07 µg/g
BCR-401R	peanut butter, 100 g	Aflatoxin B ₁ < 0.2 µg/kg Aflatoxin B ₂ < 0.2 µg/kg Aflatoxin G ₁ < 0.2 µg/kg Aflatoxin G ₂ < 0.2 µg/kg
BCR-385R	peanut butter, 100 g	Aflatoxin B ₁ 1.77 ± 0.30 µg/kg Aflatoxin B ₂ 0.48 ± 0.08 µg/kg Aflatoxin G ₁ 0.9 ± 0.4 µg/kg Aflatoxin G ₂ 0.30 ± 0.12 µg/kg Sum aflatoxins B ₁ +B ₂ +G ₁ +G ₂ 3.5 ± 0.5 µg/kg
BCR-264	peanut butter, 150 g	Aflatoxin B ₁ 206 ± 13 µg/kg
BCR-262R	defatted peanut meal, 100 g	Aflatoxin B ₁ < 3 µg/kg
BCR-263R	defatted peanut meal, 100 g	Aflatoxin B ₁ 17.1 ± 2.4 µg/kg Aflatoxin B ₂ 3.0 ± 0.4 µg/kg Aflatoxin G ₁ 3.0 ± 0.5 µg/kg Aflatoxin G ₂ 0.62 ± 0.21 µg/kg (not certified) Sum aflatoxins B ₁ +B ₂ +G ₁ +G ₂ 23.7 ± 2.5 µg/kg (not certified)
BCR-375	compound feed, 50 g	Aflatoxin B ₁ <1 µg/kg
ERM-BE375	compound feed, 150 g	Aflatoxin B ₁ 2.6 ± 0.4 µg/kg Aflatoxin B ₂ 0.20 ± 0.04 µg/kg Aflatoxin G ₁ 0.40 ± 0.10 µg/kg Aflatoxin G ₂ < 0.2 µg/kg
ERM-BE376	compound feed, 150 g	Aflatoxin B ₁ 12.9 ± 1.8 µg/kg Aflatoxin B ₂ 0.68 ± 0.10 µg/kg Aflatoxin G ₁ 5.2 ± 0.8 µg/kg

How to order reference materials

From JRC in Geel

Tel.: +32 14 571 705 • Fax: +32 14 590 406 • <https://ec.europa.eu/jrc/en/reference-materials> • E-mail: jrc-irrm-rm-distribution@ec.europa.eu

From authorised distributors

LGC Standards GmbH (DE)
<http://www.lgcstandards.com/>
E-mail: de@lgcstandards.com

Sigma-Aldrich RTC Inc. (USA)
<http://www.RT-Corp.com>
E-mail: RTCSalesgroup@sial.com

Industrial Analytical (RSA)
<http://www.industrialanalytical.co.za>
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Sigma-Aldrich Chemie GmbH (CH)
<http://www.sigmaaldrich.com/irrm>
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