

List of CEN, EN and ISO methods for the analysis of mycotoxins in food and feed.
(revision December 2022)

Matrix	Mycotoxins	Method	Description
Cereals, nuts and derived products	Aflatoxins B1, B2, G1, G2	EN ISO 16050:2011	Foodstuffs - Determination of aflatoxin B1 and total aflatoxin B1, B2, G1 and G2 content in cereals, nuts and derived products - High performance liquid chromatographic method (ISO 16050:2003)
Cereals, nuts and derived products	Aflatoxins B1, B2, G1, G2	EN 14123:2007	Foodstuffs - Determination of aflatoxin B1 and total aflatoxin B1, B2, G1 and G2 content in hazelnut, peanut, pistachio, fig and paprika powder High Performance Chromatography (HPLC) method with post-column derivatisation and immunoaffinity column purification
Cereal-based foods	Aflatoxins B1	UNI EN 15851:2010	Foodstuffs - Determinazione di aflatossina B1 in alimenti a base di cereali per lattanti e prima infanzia - Metodo per cromatografia ad alta risoluzione (HPLC) con purificazione in colonna di immunoaffinità e rivelazione a fluorescenza
Food: spices other than paprika	Aflatoxins B1, B2, G1, G2	EN 17424:2020	Foodstuffs - Determination of aflatoxins in spices other than paprika by IAC clean-up and HPLC-FLD with post-column derivatization
Milk and dairy products	Aflatoxins M1	ISO 14675:2003	Milk and milk products - Guidelines for a standardised description of competitive enzyme immunoassays Determination of aflatoxin M1 content
Milk and milk powder	Aflatoxins M1	ISO14674:2005/ IDF 190:2005	Milk and milk powder - Determination of aflatoxin M1 content - Cleaning by immunoaffinity chromatography and determination by thin-layer chromatography
Milk and milk powder	Aflatoxins M1	EN ISO 14501:2021	Milk and milk powder - Determination of aflatoxin M1 content - Purification by immunoaffinity chromatography and determination by high-resolution liquid chromatography
Natural products	Aflatoxins	ISO 22283:2020	Traditional Chinese Medicine - Determination of aflatoxins in natural products by LC-FLD

Foodstuffs	Citrinin	UNI EN 17203:2021	Foodstuffs - Determination of citrinin in foodstuffs by LC-MS/MS
Cereals and cereal products	Ochratoxin A	ISO 15141:2018	Cereals and cereal products - Determination of ochratoxin A - High performance liquid chromatographic method, immunoaffinity column purification and fluorescence detection
Barley and roasted coffee	Ochratoxin A	UNI EN 14132:2009	Foodstuffs - Determination of ochratoxin A in barley and roasted coffee - High resolution chromatography (HPLC) method with immunoaffinity column purification
Wine and beer	Ochratoxin A	UNI EN 14133:2009	Foodstuffs - Determination of ochratoxin A in wine and beer - High resolution chromatography (HPLC) method with immunoaffinity column purification
Sultanas, mixed nuts, dried fruit and dried figs	Ochratoxin A	UNI EN 15829:2010	Foodstuffs - Determination of ochratoxin A in currants sultanas and sultanas (belonging to the Vitis Vinifera species), mixed nuts and dried figs - HPLC method with immunoaffinity column purification and fluorescence detection
Cereal-based foods	Ochratoxin A	EN 15835:2010	Foodstuffs - Determination of ochratoxin A in cereal-based foods for infants and young children - HPLC method with immunoaffinity column purification and fluorescence detection
Foods: paprika, chilli pepper, black and white pepper, nutmeg, spice mix, liquorice, cocoa and cocoa products	Ochratoxin A	EN 17250:2020	Foodstuffs - Determination of ochratoxin A in paprika, chilli, black and white pepper, nutmeg, spice mix, liquorice, cocoa and cocoa products by immunoaffinity column purification and high-performance liquid chromatography with fluorescence detection (HPLC-FLD)
Food: pork and derived products	Ochratoxin A	UNI EN 17251:2020	Foodstuffs - Determination of ochratoxin A in pork and pork products by IAC purification and high resolution liquid chromatography with fluorescence detection (HPLC-FLD)
Cereals and cereal products	Deoxynivalenol	DIN EN 15891:2010-12	Foodstuffs - Determination of deoxynivalenol in cereals, cereal products and cereal-based foods for infants and young children - HPLC method with immunoaffinity column purification and UV detection

Maize-based baby food, barley flour, maize flour, polenta, wheat flour and cereal-based foods	Zearalenone	EN 15850:2010	Foodstuffs - Determination of zearalenone in corn, barley flour, maize flour, polenta, wheat flour and cereal-based baby foods for infants and young children - HPLC method with immunoaffinity column purification and fluorescence detection
Vegetable oils	Zearalenone	UNI EN 16924:2017	Foodstuffs - Determination of zearalenone in edible vegetable oils by LC-FLD or LC-MS / MS.
Apple juice, apple juice concentrates and drinks containing apple juice	Patulin	ISO 8128-1:1993	Apple juice, apple juice concentrates and beverages containing apple juice - Determination of patulin content - Part 1: High performance liquid chromatography method.
Apple juice, apple juice concentrates and drinks containing apple juice	Patulin	ISO 8128-2:1993	Apple juice, apple juice concentrates and beverages containing apple juice - Determination of patulin content - Part 2: Thin layer chromatography method
Apple juice and puree	Patulin	EN 14177:2003	Foodstuffs - Determination of patulin in clear and turbid apple juice and puree - HPLC method with liquid/liquid partition purification
Fruit juice and fruit purée	Patulin	UNI EN 15890:2010	Foodstuffs - Determination of patulin in fruit juices and fruit purées for infants and young children - HPLC method with purification by liquid/liquid partition and extraction to solid phase and UV detection
Mais	Fumonisin B1, fumonisin B2	DIN EN ISO 520:2011-03	Foodstuffs - Determination of fumonisins B1 and B2 in maize - HPLC method purification by solid-phase extraction
Maize-based products	Fumonisin B1, fumonisin B2	EN 14352:2004	Foodstuffs - Determination of fumonisin B1 and B2 in maize-based foods - HPLC method with immunoaffinity column purification
Processed maize-based foods	Fumonisin B1, fumonisin B2	CEN/TS 16187:2011	Food products - Determination of fumonisin B1 and fumonisin B2 in processed maize-based foods for infants and young children - HPLC method with immunoaffinity column purification and fluorescence detection after pre-column derivatisation

Processed maize-based foods for infants and young children	Fumonisin B1, fumonisin B2	EN 16187:2015	Foodstuffs - Determination of fumonisin B1 and fumonisin B2 in processed maize-based foods for infants and young children - HPLC method with immunoaffinity column purification and fluorescence detection after column derivatisation.
Food: cereals and cereal products for infants and young children	T-2 toxin, HT-2 toxin	UNI EN 16923:2017	Foodstuffs - Determination of T-2 and HT-2 toxin in cereals and cereal products for infants and young children by LC-MS / MS after solid-phase purification
Food	Aflatoxin B1, deoxynivalenol, fumonisin B1 and fumonisin B2 ochratoxin A, T-2/HT-2 toxins, zearalenone	UNI EN 17279:2019	Foodstuffs - Multiple method for screening of aflatoxin B1, deoxynivalenol, fumonisin B1 and B2, ochratoxin A, T-2 toxin, HT-2 toxin and zearalenone in foodstuffs, excluding foods for infants and young children, by LC- MS/MS
Foodstuffs: Cereals and cereal products	Zearalenone, trichothecenes deoxynivalenol, 3-acetyl-DON, 15-acetyl-DON, nivalenol, T-2/HT-2 toxins	SIST EN 17280:2019	Foodstuffs - Determination of zearalenone and trichothecenes, including deoxynivalenol and its acetylated derivatives (3-acetyl deoxynivalenol and 15-acetyl deoxynivalenol), nivalenol T-2 toxin and HT- 2 toxin in cereals and cereal products by LC-MS/MS.
Food	Aflatoxins, deoxynivalenol, fumonisins, ochratoxin A, T-2/HT-2 toxins, zearalenone	EN17641:2022	Foodstuffs - Multiple method for the determination of aflatoxins, deoxynivalenol, fumonisins, ochratoxin A, T-2 toxin, HT-2 toxin and zearalenone by LC-MS/MS
Foodstuffs: Cereals and cereal products	ergocornine, ergocorninine, ergocristinine α -ergocryptine, ergometrine, ergometrinine, ergosine, ergotamine, ergotaminine	EN17425:2021	Foodstuffs - Determination of ergot alkaloids in cereals and cereal products by dSPE clean-up and HPLC-MS/MS
Food: tomato, wheat, sunflower seeds	Altenuene, alternariol, alternariol monomethyl ether, tenthioxin, tenuazonic acid	EN17521:2021	Foodstuffs - Determination of Alternaria toxins in tomatoes, wheat and sunflower seeds by purification in SPE and HPLC-MS/MS.

Lupin seeds and derived products	Fomopsin A	EN 17252:2020	Foodstuffs - Determination of fomopsin A in lupin seeds and derived products by LC- MS/MS.
Animal feed	Ochratoxin A	UNI EN 16007:2011	Animal feeding stuffs - Determination of ochratoxin A in animal feeding stuffs by immunoaffinity column purification and high-resolution liquid chromatography with fluorescence detection
Animal feed	Zearalenone	ISO 17372:2008/Amd 1:2013	Animal feeding stuffs - Determination of zearalenone by immunoaffinity column purification and high resolution liquid chromatography with fluorescence detection - Amendment 1: Scope limitation
Animal feed	Zearalenone	EN 15792:2009	Animal feeding stuffs - Determination of zearalenone in feedingstuffs - High performance liquid chromatography method with fluorescence detection and immunoaffinity column purification
Animal feed	Fumonisin B1, fumonisin B2	EN 16006:2011	Animal feeding stuff- Determination of the sum of Fumonisin B1 and B2 in compound feed with immunoaffinity clean-up and RP-HPLC with fluorescence detection after pre- or post-column derivatization
Animal feed	T-2/HT-2 toxins, deoxynivalenol, zearalenone	EN 16877:2016	Animal feeding stuff - Methods of sampling and analysis - Determination of T-2 and HT-2 toxins, deoxynivalenol and zearalenone, in feed materials and compound feed by LC-MS.
Animal feed	Ocratossina A, aflatossina B1, deossinivalenolo, zearalenone, tossina T-2/HT-2 fumonisina B1, fumonisina B2	UNI EN 17194:2019	Animal feedingstuffs - Methods of sampling and analysis - Determination of deoxynivalenol, aflatoxin B1, fumonisin B1&B2, T-2 and HT-2 toxin, zearalenone and ochratoxin A in feed materials and compound feed by LC-MS/MS