DAkkS
Deutsche
Akkreditierungsstelle

Accreditation

The Deutsche Akkreditierungsstelle attests with this **Partial Accreditation Certificate** that the testing laboratory

PhytoLab GmbH & Co. KG
Dutendorfer Straße 5 - 7, 91487 Vestenbergsgreuth

meets the requirements according to DIN EN ISO/IEC 17025:2018 for the conformity assessment activities listed in the annex to this certificate. This includes additional existing legal and normative requirements for the testing laboratory, including those in relevant sectoral schemes, provided they are explicitly confirmed in the annex to this certificate.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This partial accreditation certificate only applies in connection with the notice of 17.12.2024 with accreditation number D-PL-19308-02.
It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 10 pages.

Registration number of the partial accreditation certificate: **D-PL-19308-02-02**
It is a part of the accreditation certificate: D-PL-19308-02-00.

Berlin, 17.12.2024
Barbara Tyralla
Head of Technical Unit

Translation issued:
Barbara Tyralla
Head of Technical Unit

The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

See notes overleaf

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The Deutsche Akkreditierungsstelle GmbH (DAkkS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkkS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of accreditation bodies that are members of ILAC or IAF as equivalent.

DAkkS is a signatory to the multilateral agreements for mutual recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC).

The up-to-date state of membership can be retrieved from the following websites:
EA: www.european-accreditation.org
ILAC: www.ilac.org
IAF: www.iaf.nu

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Annex to the Partial Accreditation Certificate D-PL-19308-02-02 according to DIN EN ISO/IEC 17025:2018

Valid from: **17.12.2024**

Date of issue: 17.12.2024

This annex is a part of the accreditation certificate D-PL-19308-02-00.

Holder of partial accreditation certificate:

PhytoLab GmbH & Co. KG
Dutendorfer Straße 5 - 7, 91487 Vestenbergsgreuth

with the location

PhytoLab GmbH & Co. KG
Dutendorfer Straße 5 - 7, 91487 Vestenbergsgreuth

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

Tests in the fields:

Physical, physico-chemical, chemical, visual, microbiological
and selected molecular biological analysis of plant-based foodstuffs and feedstuffs
Microbiological analysis of cosmetics

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de.

Flexible scope of accreditation:

Within the specified test fields, the laboratory is permitted to do the following without obtaining prior notification and consent from DAkkS GmbH

[Flex B] Freely select standard test methods or equivalent test methods.
[Flex C] Modify test methods and develop new test methods.

The test methods listed are given by way of example. The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the testing laboratory's website.

Plant-based foodstuffs and plant-based feedstuffs

1 Physical, physico-chemical and chemical analysis

1.1 Gravimetric determination of dry substance in plant-based foodstuffs and feedstuffs [Flex C]

DIN 10800 2016-07	Analysis of tea – Determination of loss in mass of unground tea at 103 °C (Modification: *Also in other selected plant-based foodstuffs and feedstuffs, only single determination*)
DIN 10806 2016-07	Analysis of tea – Preparation of ground sample of defined dry matter content (Modification: *Also in other selected plant-based foodstuffs and feedstuffs, only single determination*)
USP 41 <731> 2018	Loss on drying (Modification: *Also in other selected plant-based foodstuffs and feedstuffs*)
PV 304110 2016-03	Determination of dry residue (gravimetry) of glycolic extracts

1.2 Titrimetric determination of water content in plant-based foodstuffs and plant-based feedstuffs [Flex B]

Ph. Eur. 11.0, 04/2018:20512 Method A	Semi-micro determination of water – Karl Fischer method Water: semi-micro determination
Ph. Eur. 11.0, 07/2019:20532	Micro determination of water – Coulometric titration Water: micro determination

1.3 Determination of water content in plant-based foodstuffs and plant-based feedstuffs by distillation [Flex B]

ISO 939 2021-01	Gewürze und würzende Zutaten – Bestimmung des Wassergehaltes (Azeotrope Destillation) Spices and condiments – Determination of moisture content – Entrainment method
Ph. Eur. 11.0, 01/2008:20213	Bestimmung von Wasser durch Destillation Determination of water by distillation

1.4 Determination of essential oil in plant-based foodstuffs and plant-based feedstuffs by hydrodistillation [Flex B]

DIN EN ISO 6571 2018-03	Spices, condiments and herbs – Determination of volatile oil content (hydrodistillation method) (Modification: *Determination of loss in mass (gravimetry) of unground tea at 103 °C according to DIN 10800:2016-07, PV 304000 (Method 304450), adaptation of distillation times and sample weights to Ph. Eur., also in other selected plan-based foodstuffs and feedstuffs*)
Ph. Eur. 11.0, 07/2019:20812	Essential oils in herbal drugs (Modification: (Specified in % m/V, also in selected plant-based foodstuffs and feedstuffs)

1.5 Photometric determination of ingredients and plant protection product residues in plant-based foodstuffs and feedstuffs [Flex C]

DIN ISO 14502-1 2007-11	Determination of substances characteristic of green and black tea – Part 1: Content of total polyphenols in tea – Colorimetric method using Folin-Ciocalteu reagent (Modification: *Also in other selected plant-based foodstuffs and feedstuffs*)
DIN EN 12396-3 2000-10	Non-fatty foods; determination of dithiocarbamate and thiuram disulphide residues – Part 3: UV spectrophotometric xanthate method (Modification: *Only in selected plant-based foodstuffs and feedstuffs*)
PV 608063 2018-09	Determination of total flavonoids (colorimetric with Folin-Ciocalteu reagent) in black and green tea

1.6 Testing for identity and purity in plant-based foodstuffs and plant-based feedstuffs using thin-layer chromatography [Flex C]

PV 203900 2019-04	Test for identity using thin-layer chromatography for selected plant-based products
PV 203950 2019-04	Test for identity from the essential oil using thin-layer chromatography for selected plant-based products
PV 309900 2019-04	Test for identity purity using thin-layer chromatography for selected plant-based products

1.7 Determination of ingredients and mycotoxins in plant-based foodstuffs and plant-based feedstuffs using liquid chromatography (LC) with conventional detectors (UV, FLD) [Flex C]

Ph. Eur. 11.0, 01/2012:0277	18-beta-Glycyrrhizinsäure (HPLC-UV), bezogen auf die getrocknete Droge, Ph. Eur. Monographie Liquorice root 18-beta-glycyrrhizic acid (HPLC-UV), with reference to dried drug, Ph. Eur. monograph Liquorice root
Ph. Eur. 11.0, 07/2019:1523	Ginsenosides (HPLC-UV), with reference to dried drug, Ph. Eur. monograph Ginseng
PV 403073 2014-02	Determination of coumarin (HPLC-UV) in cinnamon and cinnamon extracts
PV 605410 2014-02	Determination of the content (HPLC-UV) of ginsenosides, calculated as Rg1 and Rb1 in ginseng extract
PV 805021 2014-12	Identification and determination of aflatoxin B1, B2, G1 and G2 (HPLC fluorescence) in plant-based products (matrix group I)
PM 805023 2018-11	Identification and determination of aflatoxin B1, B2, G1 and G2 (HPLC fluorescence) in plant-based products (matrix group II)
PV 805025 2015-01	Identification and determination of aflatoxin B1, B2, G1 and G2 (HPLC fluorescence) in plant-based products (matrix group III)
PM 805091 2019-04	Identification and determination of ochratoxin A (HPLC fluorescence) in plant-based products

1.8 Determination of ingredients, mycotoxins, organic contaminants and plant protection product residues in plant-based foodstuffs and plant-based feedstuffs using liquid chromatography (LC) with mass selective detectors (MS, MS/MS) [Flex C]

ASU L 00.00-115 2018-10	Analysis of foodstuffs – Multiple analytical method for the determination of pesticide residues using GC and LC after acetonitrile extraction/partitioning and clean-up by dispersive SPE in plant-based foodstuffs – Modular QuEChERS method (adoption of standard of the same name DIN EN 15662, July 2018) (Modification: *Only LC-MS/MS, different sample weight, extraction mixture of acetonitrile/methanol, chromatography modified, only in selected plant-based foodstuffs and feedstuffs*)
PV 504870 2017-12	Determination of anisatin (LC-MSD) in star anise and star anise oil
PV 720724 2018-08	Determination of nicotine (LC-MS/MS) in selected plant-based products
PV 720728 2018-04	Determination of phenoxy alkane carboxylic acids (LC-MS/MS) in selected plant-based products
PV 804920 2017-12	Determination of acrylamide (LC-MS/MS) in selected plant-based products
PV 805163 2018-12	Determination of ochratoxin A, based on dry substance (LC-MS/MS) in selected plant-based products
PM 805521 2017-01	Determination of pyrrolizidine alkaloids and their N-oxides (LC-MS/MS) in selected plant-based products

1.9 Determination of ingredients, solvent residues, organic contaminants and plant protection product residues in plant-based foodstuffs and plant-based feedstuffs using gas chromatography (GC) with standard detectors (FID, FPD, ECD, NPD) [Flex C]

DIN EN ISO 9832 2003-12	Animal and vegetable fats and oils – Determination of residual technical hexane content (Modification: *Adaptation to state-of-the-art technology, sample preparation and measurement (headspace), only in vegetable fats and oils*)
ASU L 00.00-34 2010-09	Analysis of foodstuffs – Modular multiple analytical method for the determination of plant protection product residues in foodstuffs (revised and extended version of DFG Method S 19) (Modification: *Restriction to modules D1, D2, E1, E2, E3, E6, E7, E9, only in selected plant-based foodstuffs and feedstuffs*)

ASU L 53.00-1 1999-11	Analysis of foodstuffs – Gas chromatographic determination of ethylene oxide and 2-chloroethanol in spices (Modification: *6-point calibration with internal standard 1-bromo-2-propanol, reduced concentration of sodium iodide and sodium thiosulfate solution, addition of the ISTD before extraction, single shaking, also in other selected plant-based foodstuffs and feedstuffs*)
Ph. Eur. 11.0, 04/2019:0405	Chromatographic profile (GC-FID), Ph. Eur. (mod.) monograph Peppermint oil
PV 403310 2017-03	Ethanol content (GC) in liquid plant-based products
PV 730271 2014-08	Determination of phosphine (headspace GC) in selected plant-based products
PV 805762 2017-03	Determination of residual solvents (headspace GC) in % in selected plant-based products
PV 805763 2017-03	Determination of residual solvents (headspace GC) in mg/kg in selected plant-based products

1.10 Determination of ingredients, polycyclic aromatic hydrocarbons and plant protection product residues in plant-based foodstuffs and plant-based feedstuffs using gas chromatography (GC) with mass-selective detectors [Flex C]

ASU L 00.00-34 2010-09	Analysis of foodstuffs – Modular multiple analytical method for the determination of plant protection product residues in foodstuffs (revised and extended version of DFG Method S 19) (Modification: *Restriction to module D4, measurement with GC-MS/MS, only in selected plant-based foodstuffs and feedstuffs*)
ASU L 47.08-02 2004-12	Analysis of foodstuffs – Determination of estragole in tea infusion using GC-MS (Modification: *Sample weight and extraction volume reduced, single-point calibration; also in extract mixtures of several components*)
ASU L 47.08-03 2006-09	Analysis of foodstuffs – Determination of estragole in infusions of fennel and other tea-like products – GC-MS method (Modification: *Infusion preparation also according to specifications, single-point calibration*)

PV 720470 2015-12	Screening of plant protection product residues (GC-MS/MS) in selected plant-based products
PV 720546 2017-03	Determination of plant protection product residues: glyphosate and aminomethylphosphonic acid (AMPA) by GC-MS in selected plant-based products
PV 730110 2017-04	Determination of plant protection product residues: phenylureas and their anilines by GC-MS in selected plant-based products
PV 800823 2022-04	Determination of polycyclic aromatic hydrocarbons (PAHs) in plant-based extracts

1.11 Determination of heavy metals using atomic absorption spectrometry

Ph. Eur. 11.0, 07/2014:20427	Heavy metals in herbal drugs and herbal drug preparations Lead, Cadmium, Mercury, Nickel

1.12 Determination of anions and elements by inductively coupled plasma mass spectrometry (ICP-MS) in plant-based foodstuffs and feedstuffs [Flex C]

DIN EN 15111 2007-06	Foodstuffs – Determination of trace elements – Determination of iodine by ICP-MS (mass spectrometry with inductively coupled plasma) (Modification: *Digestion in microwave instead of drying cabinet, sample filtration with C18 columns instead of membrane filters, calibration range extended downwards and upwards, only in selected plant-based foodstuffs and feedstuffs*)
Ph. Eur. 11.0, 07/2014:20427	Heavy metals in herbal drugs and herbal drug preparations Lead, Cadmium, Mercury, Nickel
PV 730207 2017-05	Determination of inorganic bromide, calculated as bromide ion (ICP-MS) in selected plant-based products
PV 811100 2016-12	Determination of aluminium (ICP-MS/MS) in selected plant-based products
PV 812300 2016-12	Determination of sodium (ICP-MS) in mg/kg in selected plant-based products

2 Determination of bacteria, fungi and yeasts in plant-based foodstuffs and plant-based feedstuffs by cultural microbiological analysis [Flex B]

ISO 4833-1 AMD 1 2022-01	Microbiology of the food chain – Horizontal method for the enumeration of microorganisms – Part 1: Colony count at 30 °C by the pour plate technique
ISO 21527-2 2008-07	Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of yeasts and moulds – Part 2: Colony count technique in products with water activity equal to or less than 0.95
ISO 21528-2 2017-06	Microbiology of the food chain – Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 2: Colony count technique
ISO 6888-1 AMD 1 2023-09	Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species) – Part 1: Technique using Baird-Parker agar medium
DIN EN ISO 7932 2020-11	Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of presumptive *Bacillus cereus* – Colony-count technique at 30 degrees C

3 Determination of bacteria in plant-based foodstuffs and plant-based feedstuffs by real-time PCR [Flex B]

BAX® System Q7 PCR Assay for Salmonella 2 Part KIT 2011 D14368501 2019-08	Method for the detection of Salmonella spp. in foodstuffs and feedstuffs with the BAX PCR system

4 Visual inspection

4.1 Test for identity by simple visual inspection

PV 201900 2020-06	Test for identity testing by simple visual inspection (macroscopic, magnifying glass) for selected plant-based raw materials and mono-products
PV 204000 2020-06	Test for identity testing by simple visual inspection (macroscopic, magnifying glass) for selected plant-based mixtures

4.2 Test for identity by microscopy

PV 202900 2019-08	Test for identity using microscopy for selected plant-based products

5 Microbiological analysis of cosmetic preparations

Ph. Eur. 11.0, 04/2022:50103	Efficacy of antimicrobial preservation
PV 803484 2024-03	Cosmetics – Microbiology – Evaluation of the antimicrobial protection of a cosmetic product
PV 803403 2024-03	Cosmetics – Microbiology –Enumeration and detection of aerobic mesophilic bacteria
PV 803404 2023-08	Cosmetics – Microbiology –Enumeration of yeast and mould
PV 803405 2023-08	Cosmetics – Microbiology – Detection of *Escherichia coli*
PV 803406 2023-08	Cosmetics – Microbiology – Detection of *Staphylococcus aureus*
PV 803407 2023-08	Cosmetics – Microbiology – Detection of *Pseudomonas aeruginosa*
PV 803408 2023-08	Cosmetics – Microbiology – Detection of *Candida albicans*
PV 803411 2023-08	Cosmetics – Microbiology – Detection of *Burkholderia cepacia*
PV 803412 2023-08	Cosmetics – Microbiology – Detection of *Pluralibacter gergoviae*

Abbreviations used:

ASU	Amtliche Sammlung von Untersuchungsverfahren (Official Collection of Test Methods) on the basis of Section 64 LFGB (German Food and Feed Act)

DIN	Deutsches Institut für Normung e. V. (German Institute for Standardization)
EN	European standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
Ph. Eur.	Pharmacopoeia Europaea
PM	In-house method (test method) of PhytoLab GmbH & Co. KG
PV	In-house method (test specification) of PhytoLab GmbH & Co. KG
USP	United States Pharmacopeia