Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-14013-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **14.08.2020**

Date of issue: 14.08.2020

Holder of certificate:

IfP Privates Institut für Produktqualität GmbH

at the locations

Wagner-Régeny-Straße 8, 12489 Berlin
Deutscher Platz 5e, 04103 Leipzig
Ringstraße 10, 99885 Ohrdruf

Tests in the fields:

microbiological, immunological, molecular biological, sensory and physical, physical-chemical and chemical analysis of foods;
physical, physical-chemical, chemical, microbiological and molecular biological analysis of feeding stuffs, raw materials for foods, cosmetics, surrounding area samples in the food sector;
selected physical, physical-chemical, chemical and microbiological analysis of water (drinking water, swimming and swimming bath water as well as water from recooling plants); sampling of swimming and swimming bath water as well as water from recooling plants;
physical-chemical analysis of plastics with food contact;
analysis according to the German drinking water-decree with the exception of radioactive substances; sampling of raw- and drinking water;
determination of microorganisms at surfaces of commodities and within the scope of hygiene monitoring in the food sector;
sampling and microbiological analysis of industrial water according to §3 (8) 42. BImSchV

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

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 may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH https://www.dakks.de/en/content/accredited-bodies-dakks.

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Pharmaceuticals and active ingredients; Health care (hygiene)
Fields of testing: biological pharmaceuticals-, analyses of active and adjuvant substances; microbiologically- hygienic tests

Within the given testing field marked with * the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the free choice of standard or equivalent test methods. The listed test methods are exemplary.

Within the given testing field marked with ** the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the modification, development and refinement of test methods. The listed test methods are exemplary.

The laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standard or equivalent test methods listed here with different issue dates or revision status updates.

The testing laboratory maintains a current list of all test methods within the flexible scope of accreditation.

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Branch Berlin

1 Physical, physical chemical and chemical testing of foods and cosmetics

1.1 Sample preparation

ASU L 00.00-19/1 2015-06	Testing of foods - Determination of trace elements in foods - Part 1: Pressure Digestion (adoption of the homonymous German standard DIN EN 13805, edition December 2014)
ASU L 06.00-1 1980-09	Preparation of meat and meat products for chemical analysis
ASU L 13.00-27 2012-01	Testing of foods - Preparation of fatty acid methyl esters from animal and vegetable fats and oils (adoption of the homonymous standard DIN EN ISO 5509, edition January 2001)
ASU L 44.00-2 1985-12	Testing of foods - Preparation of chocolate and chocolate products for chemical analysis
DGF K-I 0 (02) 2002-05	German standard methods for the analysis of fats, fat products, surfactants and related materials - Extraction of fats from margarine, half-fat margarine and margarine products

1.2 Determination of the pH value in foods using electrode measurement **

ASU L 06.00-2 1980-09	Measurement of the pH-value in meat and meat products (modification: *also for fish, fish products and ready-made meals*)
ASU L 26.04-3 1987-06	Testing of foods - Measurement of the pH-value in the cover brine and the press liquor of Sauerkraut (modification: *also for other vegetable products*)
IFP 00190 2019-07	Potentiometric determination of pH value in foods

1.3 Gravimetric analysis of ingredients and additives in foods *

ASU L 00.00-18 1997-01 Corrigendum 2017-10	Testing of foods - Determination of dietary fiber in foods - enzymatic- gravimetric method

ASU L 01.00-20 2013-08	Testing of - Determination of fat content of milk and milk products by the Weibull- Berntrop gravimetric method (adoption of the homonymous standard DIN 10342, edition September 1992)
ASU L 01.00-77 2002-05	Testing of foods - Determination of total ash of milk and dairy products (adoption of the homonymous standard DIN 10477, edition August 2000)
ASU L 06.00-3 2014-08	Testing of foods - Determination of water content in meat and meat products - gravimetric method - reference method (modification: *also for fish, fish products and ready-made meals*)
ASU L 06.00-4 2017-10	Testing of foods - Determination of ash in meat and meat products (modification: *also for fish, fish products and ready-made meals*)
ASU L 06.00-6 2014-08	Testing of foods - Determination of the total fat content in meat and meat products - gravimetric method according to Weibull-Stoldt - reference method (modification: *also for fish, fish products and ready-made meals*)
ASU L 13.00-16 2018-06	Testing of foods - Animal and vegetable fats and oils - Determination of moisture and volatile matter content (adoption of the homonymous standard DIN EN ISO 662, edition August 2016)
ASU L 13.00-20 2004-12	Testing of foods - Determination of unsaponifiable matter - Method using diethyl ether extraction (adoption of the homonymous standard DIN EN ISO 3596, edition March 2002)
ASU L 13.05-1 1984-05	Testing of foods - Determination of water content in margarine (modification: *also for other oil and fat preparations*)
ASU L 13.05-3 2002-05	Testing of foods - Determination of fat content in margarine and other spreadable fats - modified method using the method KI 2a of the German standard methods for analysis of fats, fat products and related products (Wissensch. Verlagsges. m.b.H. Stuttgart) (modification: *Extraction with petrolether*)
ASU L 16.01-2 2008-12	Testing of foods - Determination of ash in grain flour
ASU L 17.00-1 1982-05 Corrigendum 2002-12	Determination of the drying loss in bread including biscuits of bread dough

ASU L 17.00-3 1982-05 Corrigendum 2002-12	Determination of the ash content in bread including biscuits of bread dough
ASU L 17.00-4 1982-05 Corrigendum 2002-12	Determination of the total fat content in bread including biscuits of bread dough (modification: *Soxtherm method*)
ASU L 44.00-3 1985-12	Testing of foods – Determination of the dry matter content of solid chocolate
ASU L 44.00-4 1985-12	Testing of foods – Determination of the total fat content of chocolate (modification: *Soxtherm method*)
ASU L 47.00-3 2017-10	Testing of foods – Determination of the total ash of tea (adoption of the homonymous standard DIN 10802, edition April 2016)
ASU L 47.00-5 1985-12	Testing of foods – Analysis of tea; determination of the acid-insoluble ash content
ASU L 47.00-8 1992-12	Testing of foods – Analysis of tea; determination of the water-soluble and the water-insoluble ash content
ASU L 53.00-4 1996-02	Testing of foods – Analysis of spices and seasoning ingredients - determination of total ash and acid-insoluble ash (adoption of the homonymous German standard DIN 10223, edition January 1996) (modification: *also for other foodstuffs*)
DGF C III-12 (97) 1997	German standard methods for the analysis of fats, fat products, surfactants and related materials - Total volatile components - method B
VDLUFA VI C 35.3 1985-01	Chemical, physical and microbiological test methods for milk, milk products and dairy additives - Dry matter in milk and milk products
VDLUFA VI C 35.6 1985-01	Chemical, physical and microbiological test methods for milk, milk products and dairy additives - Dry matter in dried milk products
IFP 000169 2019-07	Gravimetric determination of dry matter in milk and milk products
IFP 001330 2019-07	Gravimetric determination of dry matter in foods and feed (*here only testing of foods*)

IFP 001303 2019-07	Gravimetric determination of total fat in foods and of crude fat in feed (Modification: *here only testing of foods*)
IFP 001304 2019-07	Gravimetric determination of the content of ash as well as water-soluble and acid-insoluble ash in foods and feed (Modification: *here only testing of foods*)

1.4 Photometric analysis of ingredients and additives in foods

ASU L 06.00-8 2017-10	Testing of foods - Determination of the hydroxyproline content in meat and meat products and sausages - Photometric method after acid digestion (reference method)
ASU L 06.00-9 2008-06 Corrigendum 2009-06	Testing of foods - Determination of total phosphorus content in meat and meat products - photometric method
ASU L 13.00-15 2018-06	Testing of foods – Animal and vegetable fats and oils - Determination of anisidine value (adoption of the homonymous standard DIN EN ISO 6885, July 2016)
DGF C-VI 6e (84) 1984	German standard methods for the analysis of fats, fat products, surfactants and related materials - Determination of the anisidine value in fats and oils

1.5 Titrimetric analysis of ingredients and additives in foods *

ASU L 00.00-46/1 1999-11	Testing of foods - Determination of sulphite in foods - Part 1: Optimised Monier-Williams method (adoption of the homonymous standard DIN EN 1988 part 1, edition May 1998)
ASU L 06.00-7 2014-08	Testing of foods - Determination of crude protein content in meat and meat products - Titrimetric method according to Kjeldahl - reference method (modification: *also for fish, fish products and ready-made meals*)
ASU L 07.00-5/2 2010-01	Testing of foods - Determination of salt content (sodium chloride) in meat products - endpoint determination according Volhard (modification: *also for fish, fish products and ready-made meals*)
ASU L 13.00-5 2012-01	Testing of foods - Determination of acid value and acidity in animal and vegetable fats and oils (adoption of homonymous standard DIN EN ISO 660, edition October 2009)

ASU L 13.00-10 2014-08	Testing of foods - Determination of the iodine value of animal and vegetable fats and oils (adoption of the homonymous standard DIN EN ISO 3961, edition December 2013)
ASU L 13.00-18 2014-08	Testing of foods - Determination of the saponification value of animal and vegetable fats and oils (adoption of the homonymous standard DIN EN ISO 3657, edition December 2013)
ASU L 13.00-37 2018-06	Testing of foods - Animal and vegetable fats and oils - Determination of peroxide value - Iodometric (visual) endpoint determination (adoption of the homonymous standard DIN EN ISO 3960, May 2017)
ASU L 13.00-39 2018-06	Testing of foods - Animal and vegetable fats and oils - Determination of water content - Karl Fischer method (pyridine free) (adoption of the homonymous standard DIN EN ISO 8534, May 2017)
ASU L 17.00-2 1982-05 Corrigendum 2002-12	Determination of the acid value in bread including biscuits of bread dough – potentiometric method
ASU L 17.00-6 1988-12 Corrigendum 2009-06	Testing of foods - Determination of chloride for the calculation of salt in bread including biscuits from bread dough
ASU L 17.00-15 2013-08	Testing of foods - Determination of crude protein in bread including biscuits from bread dough - Kjeldahl method
ASU L 26.04-1 1984-11	Testing of foods - Determination of the chloride content in the cover brine and the press liquor for the calculation of salt in sauerkraut (modification: *also for other vegetable products*)
ASU L 26.04-4 1987-06	Testing of foods - Determination of the titratable acid content (total acid) in the cover brine and the press liquor in sauerkraut (modification: *also for other vegetable products*)
ASU L 26.04-5 1987-06	Testing of foods - Determination of the volatile acid content in the cover brine and the press liquor in sauerkraut (modification: *also for other vegetable products*)

ASU L 46.03-5 2006-12	Testing of foods - Determination of water content according to Karl Fischer in coffee and coffee products - Reference method for coffee extract (adoption of homonymous standard DIN 10772-2, edition May 2005)
IFP 001305 2019-07	Potentiometric determination of chloride in foods and feeding stuffs using titration and calculation of salt content
IFP 000130 2019-10	Iodometric determination of the peroxide value in fats and oils as well as fatty stuffs
IFP 001306 2019-10	Titrimetric determination of the acid value and free fatty acids in fats and oils as well as fatty foodstuffs
IFP 001307 2019-07	Titrimetric determination of crude protein content in foods and feed using Kjeldahl method
PV-33-HCN 2012-05	Determination of hydrogen cyanide in marzipan and persipan and their precursors by means of distillation, followed by titration

1.6 Enzymatic determination of ingredients and additives in foods using photometry **

ASU L 00.00-94 2006-09	Testing of foods - Determination of inulin in foods - enzymatic method
Megazyme Lactose & D-Galactose Art. K-LACGAR 2018-01	Lactose/Galactose Assay Kit (Rapid)
R-Biopharm L-glutamic acid Art. No. 10139092035 2013-08	Colour test for the determination of L-glutamic acid in foods and other test materials
R-Biopharm Acetic acid Art. No. 10148261035 2017-08	UV- test for the determination of acetic acid in foods and other test materials

R-Biopharm Glycerol Art. No. 10148270035 2017-08	UV- test for the determination of glycerol in foods and other test materials
R-Biopharm Ethanol Art. No. 10176290035 2018-08	UV- test for the determination of ethanol in foods and other test materials
R-Biopharm D-lactic acid/L-lactic acid Art. No. 11112821035 2017-09	UV- test for the determination of R- lactic acid (R- lactate) and L-lactic acid (L- Lactate) in foods and other test materials
R-Biopharm Sulfite Art. No. 10725854035 2018-04	UV- test for the determination of sulfuric acid ("total- SO_2") in foods and other test materials
IFP GmbH EnzymeFast® Lactose / Galactose E1001 2019-06	Determination of lactose and galactose in foods - enzymatic method
IFP GmbH EnzymeFast® Sucrose / Glucose / Fructose E1002 2019-06	Determination of sucrose, glucose and fructose in foods - enzymatic method
IFP GmbH EnzymeFast® Maltose / Sucrose / D-Glucose E1006 2019-06	Determination of maltose in foods - enzymatic method
IFP GmbH EnzymeFast® Lactose / Glucose E1008 2019-05	Determination of lactose and glucose in foods - enzymatic method

IFP GmbH VitaFast® Vitamin C (L-Ascorbinsäure / L-Ascorbic Acid) P1010 2019-06	Determination of ascorbic acid in foods - enzymatic method

1.7 Polarimetric determination of ingredients and additives in foods

ASU L 17.00-5 2003-12	Testing of foods - Determination of starch content in bread including biscuits of bread doughs – Polarimetric method (Modification: *here also for other foodstuffs, clarification with ethanol 40%*)

1.8 Determination of elements in foods using atomic absorption spectrometry (graphite tube AAS, flame AAS, cold-vapour AAS) *

ASU L 00.00-19/2 1993-08	Testing of foods - Determination of trace elements in foods – Part°2: Determination of iron, copper, manganese and zinc by atomic absorption spectrometry (AAS) in the flame
ASU L 00.00-19/3 2004-07	Testing of foods - Determination of trace elements in foods – Part°3: Determination of lead, cadmium, chromium and molybdenum by graphite furnace atomic absorption spectrometry (GFAAS) after pressure digestion (adoption of the homonymous standard DIN EN 14083, edition July 2003)
ASU L 00.00-19/4 2004-07	Testing of foods - Determination of trace elements in foodstuffs– Part°4: Determination of mercury by cold-vapour atomic absorption spectrometry (CVAAS) after pressure digestion (adoption of the homonymous German standard DIN EN 13806, edition November 2002)
ASU L 07.00-56 2000-07	Testing of foods - Determination of sodium in meat products - atomic absorption spectrometry (AAS)
ASU L 17.00-17 1990-06	Testing of foods - Determination of sodium in bread including biscuits of bread doughs after ashing
ASU L 26.11.03-10a 1988-12	Testing of foods - Determination of potassium content of tomato paste (Method using AAS or flame photometer)

ASU L 31.00-10 1997-01	Testing of foods - Determination of the content of sodium, potassium, calcium and magnesium in fruit and vegetable juices - atomic absorption spectrometry (AAS) (adoption of the homonymous standard DIN EN 1134, edition December 1994, as replacement for the previous official method L 31.00-10, edition November 1983)
ASU L 59.11-14 2018-10	Testing of foods - Determination of calcium and magnesium in natural mineral water (adoption of the homonymous standard DIN 38406 part 3, March 2002)
PV-204-SchwMet 2016-10	Determination of nickel in foods using AAS

1.9 Determination of elements in foods by inductively coupled plasma - mass spectrometry (ICP-MS) **

ASU L 00.00-93 2008-12	Testing of foods - Determination of iodine in foods - ICP-MS method (adoption of the homonymous standard DIN EN 15111, edition June 2007)
ASU L 00.00-128 2011-01	Testing of foods - Determination of tin in foods by mass spectrometry with inductively coupled plasma (ICP-MS) after pressure digestion (adoption of the homonymous standard DIN EN 15765, edition April 2010)
ASU L 00.00-135 2011-01	Testing of foods - Determination of arsenic, cadmium, mercury and lead in foodstuffs by ICP-MS after pressure digestion (In addition for: *aluminium, selenium, manganese, copper, iron, nickel, chromium, zinc, uranium, bromine, antimony, cobalt, molybdenum, boron and phosphorus*)
ASU L 59.11-4 2002-12	Testing of foods - Determination of iodine content in natural mineral water by ICP-MS (Mass spectrometry with inductively coupled plasma)
PV-347-ICP-MS 2016-10	Determination of elements in drinking water, feed and food samples by inductively coupled plasma mass spectrometry (ICP-MS) (*here for sodium, potassium, magnesium, calcium; here only testing of foods*)

1.10 Determination of elements in foods using HPLC-ICP-MS

PV-386-AsSpez 2016-12	Determination of arsenic compounds in foods by HPLC-ICP-MS

1.11 Determination of vitamins in foods and cosmetics using liquid chromatography with conventional detectors (DAD and fluorescence detector) *

DIN EN 14164 2014-08	Foodstuffs - Determination of vitamin B6 by high performance chromatography
ASU L 00.00-61 2010-01	Testing of foods - Determination of cholecalciferol (vitamin D_3) or ergocalciferol (vitamin D_2) in foods – HPLC- method (adoption of the homonymous standard DIN EN 12821, edition August 2009)
ASU L 00.00-62 2015-06	Testing of foods - Determination of vitamin E (α- β-, γ- and δ-tocopherol) in foods using HPLC (adoption of the homonymous standard DIN EN 12822, edition August 2014)
ASU L 00.00-63/1 2015-06	Testing of foods - Determination of vitamin A in foods by HPLC - Part 1: Determination of all-E-retinol and 13-Z-retinol (adoption of the homonymous standard DIN EN 12823-1, edition August 2014)
ASU L 00.00-63/2 2001-07	Testing of foods - Determination of vitamin A in foods by HPLC - Part 2: Determination of β-carotene (adoption of the homonymous standard DIN EN 12823-2, edition July 2000)
ASU L 00.00-83 2015-06	Testing of foods - Determination of vitamin B_1 in foods using high-performance liquid chromatography (adoption of the homonymous standard DIN EN 14122, edition August 2014)
ASU L 00.00-84 2015-06	Testing of foods - Determination of vitamin B_2 in foods using high-performance liquid chromatography (adoption of the homonymous standard DIN EN 14152, edition August 2014)
ASU L 00.00-85 2018-10	Testing of foods - Determination of vitamin C by HPLC (adoption of the homonymous standard DIN EN 14130, edition September 2003)
ASU L 00.00-86 2004-07	Testing of foods - Determination of vitamin K_1 in foods by HPLC (adoption of the homonymous standard DIN EN 14148, edition October 2003)
SLMB 62/12.2.2 2000-03	Vitamin determination in foods and cosmetics - Vitamin PP (Niacin) - Determination by HPLC in fortified foods

SLMB 62/12.2.3 2000-03	Vitamin determination in foods and cosmetics - Vitamin PP (Niacin) - Determination by HPLC in foods

1.12 Determination of mycotoxins in foods using liquid chromatography with conventional detectors (DAD and fluorescence detector) **

DIN EN ISO 14501 2008-01	Milk and milk powder - Determination of aflatoxin M_1 content - Clean-up by immunoaffinity- chromatography and determination by high-performance liquid chromatography
DIN EN ISO 16050 2011-09	Foodstuffs - Determination of aflatoxin B_1, and the total content of aflatoxins B_1, B_2, G_1 and G_2 in cereals, nuts and derived products - High performance liquid chromatographic method
DIN EN 12955 1999-09	Foodstuffs - Determination of aflatoxin B_1, and the sum of aflatoxins B_1, B_2, G_1 and G_2 in cereals, shell-fruits and derived products - High performance liquid chromatographic method with post column derivatization and immunoaffinity column clean up (*withdrawn document*)
DIN EN 14132 2009-09	Foodstuffs - Determination of ochratoxin A in barley and roasted coffee - HPLC method with immunoaffinity column clean-up
DIN EN 14133 2009-09	Foodstuffs - Determination of ochratoxin A in wine and beer - HPLC method with immunoaffinity column clean-up
ASU L 01.00-76 2009-06	Testing of foods - Determination of aflatoxin M_1 in milk and milk powder - clean-up by immunoaffinity chromatography and determination by high performance liquid chromatography (adoption of the homonymous German standard DIN EN ISO 14501, edition January 2008)
ASU L 15.03-1 2010-01	Testing of foods - Determination of ochratoxin A in barley - HPLC method with immunoaffinity column clean up (adoption of the homonymous standard DIN EN 14132, edition September 2009) (modification: *In addition for roasted coffee*)
ASU L 23.05-2 2012-01	Testing of foods - Determination of aflatoxin B_1 and the sum of aflatoxin B_1, B_2, G_1 and G_2 in hazelnuts, peanuts, pistachios, figs, and paprika powder - HPLC method with immunoaffinity clean-up and post-column derivatisation (adoption of the homonymous standard DIN EN 14123, edition March 2008)

ASU L 36.00-13 2010-01	Testing of foods - Determination of ochratoxin A in beer - HPLC method with immunoaffinity column clean up (adoption of the homonymous standard DIN EN 14133, edition September 2009) (modification: *In addition for wine*)
PV-14-OTA-HPLC-Freestyle 2019-08	Detection of ochratoxin A in foods and feed with HPLC-FLD after automated immunoaffinity clean up

1.13 Determination of ingredients, additives as well as residues and contaminants in foods by liquid chromatography with mass selective detector (LC-MS-MS) **

ASU L 00.00-115 2018-10	Testing of foods - Multi-method for the determination of pesticide residues with GC and LC after acetonitrile extraction / distribution and clean-up with dispersive SPE in plant foods - Modular QuEChERS method (adoption of the homonymous standard DIN EN 15662, July 2018) (modification: *also for cocoa ; here for LC-MS / MS*)
PV-18-Fusarien 2014-06	Determination of fusarium toxins in cereals and cereal containing foods by LC-MS/MS
PV-212-Acryl 2014-09	Determination of acrylamide by LC-MS/MS in solid and pasty foods
PV-219-MorphinLCMS 2014-02	Determination of morphine in poppy seeds by LC-MS/MS
PV-20-Pyrr 2018-02	Pyrrolizidine alkaloids in foods and feed (HPLC-MS / MS) (modification: *here only testing of foods*)
PV-307-QuPPe 2016-10	Multimethod for the determination of polar pesticides in foods of plant and animal origin, animal feed and water using HPLC-MS / MS (modification: *here only testing of foods*)
PV-391-Tropanalkaloide 2016-12	Determination of tropane alkaloids in foods and feed using QuEChERS and HPLC-MS / MS (modification: *here only testing of foods*)
PV-322 TaurCar 2016-10	Determination of taurine and L-carnitine in milk powder with LC-MS/MS
PV-432-Niacin-Panto-LCMSMS 2018-06	Determination of the nicotinic acid, niacin amide and pantothenic acid content in baby and child foods with HPLC- MS/MS

PV-108-freies Inositol 2017-10	Determination of free inositol in infant formula and child foods using HPLC-MS/MS
PV-422-gesFolat_LCMS 2018-11	Determination of the total folate in baby and child foods with HPLC-MS/MS
PV-436-Biotin-LC-MS/MS 2018-11	Determination of biotin in baby and child foods using HPLC-MS/MS
PV-199-gesCholinCarnitin 2019-04	Determination of the total choline and total carnitine content in baby foods, milk powder, milk-containing foods and animal feed with HPLC-MS/MS (modification: *here only testing of foods*)

1.14 Determination of ingredients and additives in foods using liquid chromatography with conventional detectors (RI-, DAD-, PAD and fluorescence- detector) **

ASU L 00.00-9 1984-11	Testing of foods - Determination of preservatives in low-fat foods (modification: *also for high-fat foods*)
ASU L 00.00-28 2001-07	Testing of foods - Determination of acesulfame-K, aspartame and saccharin sodium salt in foods - HPLC method (adoption of the homonymous standard DIN EN 12856, edition July 1999, as replacement for the previous official method L 00.00-28)
ASU L 00.00-134 2010-09	Testing of foods - Determination of coumarin in cinnamon-containing foods by means of HPLC / DAD or HPLC-MS / MS (modification: *here only for HPLC / DAD*)
ASU L 18.00-16 1999-11	Testing of foods - Determination of theobromine and caffeine in fine bakery products
ASU L 40.00-7 1999 -11 Corrigendum 2009-06	Testing of foods - Analysis of honey - Determination of the content of the saccharides fructose, glucose, sucrose, turanose and maltose; HPLC method (adoption of the homonymous standard DIN 10758, edition May 1997) (modification: *without turanose; here for all kind of foods, with ion exchange column, Carrez precipitation*)
ASU L 45.00-1 1999-11	Testing of foods -. Determination of theobromine and caffeine in cocoa

ASU L 47.05-1 1997-09	Testing of foods - Determination of the amount of theobromine and caffeine in solid tea extract and preparations of foods with tea extract (adoption of homonymous standard DIN 10810, edition February 1996)
ASU L 57.22.99-4 1998-09	Testing of foods - Determination of aspartame in sweeteners - High-performance-liquid-chromatographic method (adoption of homonymous standard DIN EN 1378, edition October 1996, as replacement for the previous official method L 57.22.99-4, edition December 1989)
ASU L 57.22.99-5 1998-09	Testing of foods - Determination of sodium cyclamate, saccharin and sorbic acid in sweeteners – High-performance-liquid-chromatographic method (adoption of homonymous standard DIN EN 1379 edition October 1996 as replacement for the previous official method L 57.22.99-5, edition December 1990)
PV-24-Cum 2018-11	Determination of coumarin in foods by HPLC
PV-196-Coenzyme Q10 2013-06	Determination of coenzyme Q10 in foods by HPLC method
PV-230-Van 2013-06	Determination of vanillin, vanillic acid, ethyl vanillin, 4-hydroxybenzoic acid and 4-hydroxybenzaldehyde in foods by HPLC
PV-327-HPLCZucker 2017-03	Determination of glucose, fructose, sucrose, lactose and maltose as well as malitol and glycerol in foods by HPLC method using RI detector
PV-448-Lac-HPAE-PAD 2019-04	Determination of lactose in foods using HPAE-PAD

1.15 Determination of ingredients, residues and contaminants in foods using gas chromatography with conventional detectors (ECD und FID) **

ASU L 00.00-24 1993-08 Corrigendum 2002-12	Testing of foods - Determination of benzene, toluene and xylene-isomers in foods

ASU L 00.00-36/2 2004-07	Testing of foods - Determination of bromide residues in low-fat foods - Part 2: Determination of inorganic bromide (adoption of homonymous standard DIN EN 13191-2, edition October 2000 as a replacement for current official method L 00.00-36) (modification: *modification of the sample weight*)
ASU L 00.00-49/2 1999-11 Corrigendum 2002-12	Testing of foods - Low fat foodstuffs - Determination of dithiocarbamate and thiuram disulphide residues - Part 2: Gas chromatographic method (adoption of homonymous standard DIN EN 12396 Part 2, Edition December 1998) (modification: *modification of sample weight, reaction time and working day calibration*)
ASU L 13.00-26 2008-06	Testing of foods - Gas chromatographic analysis of methyl esters of fatty acids in animal and vegetable fats and oils (adoption of homonymous standard DIN EN ISO 5508 , edition July 1995)
ASU L 13.03/04-2 2018-06	Testing of foods - Determination of the content of trans fatty acid isomers of vegetable fats and oils (adoption of homonymous standard DIN EN ISO 15304, July 2002)
IFP 000784 2019-07	Gas chromatographic determination of mineral oil hydrocarbons in foods and packaging materials (modification: *here only testing of foods*)
PV-280-Dithio 2016-10	Determination of dithiocarbamates (calculated as CS_2) in plant foods and feed using HS-GC-ECD (modification: *here only testing of foods*)

1.16 Determination of ingredients, residues and contaminants in foods using gas chromatography with mass-selective detectors (GC-MS) **

ASU L 20.01-13 2014-08	Testing of foods - Determination of the cholesterol content in mayonnaise and egg yolk containing salad mayonnaise - Gas chromatographic method (modification: *for all fatty foods, determination with GC-MS*)
DGF C VI 18 2010	German standard methods for the analysis of fats, fat products, surfactants and related materials - Fatty-acid-bound 3-chloropropane-1,2-diol (3-MCPD-ester) and 2,3-epoxi-propane-1-ol (glycidol) – Determination in oils and fats by GC-MS (Difference method)

IFP 000450 2019-12	Determination of hexane and BTEX in hazelnut pastes with Headspace-GC-MS
IFP 000423 2019-04	Determination of geosmin in rice using HS-SPME-GC-MS
IFP 000420 2019-10	Determination of geosmin in cocoa products using HS-SPME-GC-MS
PV 276-CholTeig 2016-09	Determination of the cholesterol content in starchy foods with GC-MS
PV 216-CholfettLM 2016-09	Determination of the cholesterol content in fat and oil as well as fatty foods with GC-MS

1.17 Determination of ingredients, residues and contaminants in foods using gas chromatography with mass selective detector (GC-MS/MS) **

ASU L 00.00-115 2018-10	Testing of foods - Multi-method for the determination of pesticide residues with GC and LC after acetonitrile extraction / distribution and clean-up with dispersive SPE in plant foods - Modular QuEChERS method (adoption of the homonymous standard DIN EN 15662, July 2018) (modification: also for cocoa ; *also for determination of PCB; here for GC-MS / MS*)
DGF C III 17a 1997	German standard methods for the analysis of fats, fat products, surfactants and related materials - Determination of polycyclic aromatic hydrocarbons in oils and fats (modification: *in addition for tea and spices*)
PV-217-PAK-LC-GC-MS/MS 2019-10	Determination of polycyclic aromatic hydrocarbons (PAH) in fats, oils and foods with automated LC-LC-GC-MS/MS coupling
PV-218-PCB 2016-10	Determination of non-dioxin-like PCB (ndl-PCB) in foods and feed using GC-MS/MS (modification: *here only testing of foods*)

1.18 Determination of mycotoxins in foods using Enzyme Immuno Assay (ELISA) *

Neogen; Veratox® for DON 5/5; Art. No.: 8331NE 2019-07	Competitive direct ELISA for the quantitative analysis of DON in cereal grains and cereal products

R-Biopharm; RIDASCREEN® Aflatoxin M1; Art. No.: R1121 2017-10	Competitive enzyme immunoassay for the quantitative determination of aflatoxin M1 in milk and milk powder.

1.19 Further physical, physical- chemical and chemical tests of foods

ISO 18787 2017-11	Foodstuffs - Determination of water activity
ASU L 13.00-28 2018-10	Testing of foods - Determination of the refractive index of animal and vegetable fats and oils (adoption of the homonymous standard DIN EN ISO 6320, July 2017) (modification: *here at 20° C*)
ASU L 26.00-1 2018-10	Testing of foods - Determination of nitrate content in vegetable products - HPLC/IC - method (adoption of the homonymous standard DIN EN 12014 part 2, February 2018)
SLMB 301.1 1996-06	Determination of the litre weight of ice cream
IFP 001411 2019-08	Refractometric determination of the refractive index in foods
PV-390 2019-07	Identification and characterization of foreign particles in foods, feed, raw materials, semi-finished products and cosmetics using stereomicroscopy, REM-EDX and FTIR.

2 Physical, physical-chemical and chemical testing of feeding stuffs

2.1 Determination of elements by atomic absorption spectrometry (Graphite tube AAS, Flame AAS, Cold vapour-AAS) in feeding stuffs

PV-203- Mineralstoffe 2016-10	Determination of sodium, potassium, calcium, magnesium by AAS in foods and feed
PV-204- Schwermetalle 2016-10	Determination of lead, cadmium, chromium, nickel and manganese in foods and feed with AAS (modification: *here only lead and cadmium*)
PV-232- Spurenelemente 2016-10	Determination of iron, copper, manganese and zinc by AAS in foods and feed

PV-244-Hg 2016-10	Determination of mercury by means of FIAS / cold vapour AAS in foods, feed and drinking water
PV-272-Arsen 2016-10	Determination of arsenic in foods, feed and drinking water by AAS

2.2 Determination of elements by inductively coupled plasma mass spectrometry (ICP-MS) in feeding stuffs

VDLUFA MB III 11.7.1 6. Suppl. 2006	Determination of extractable iodine content in feed by ICP-MS
PV-347-ICP-MS 2016-10	Determination of elements in drinking water, feed and foods samples by inductively coupled plasma mass spectrometry (ICP-MS) (here for: *Phosphorus, aluminum, arsenic, cadmium, lead, cobalt, nickel, calcium, magnesium, potassium, sodium, iron, copper, manganese, zinc, selenium and mercury in feed*)

2.3 Gravimetric determination of ingredients and additives in feeding stuffs

VDLUFA MB III 3.1 1976	Determination of moisture (modification: *trituration with sea sand*)
VDLUFA MB III 5.1.1 2. Suppl. 1988	Determination of crude fat (modification: *Method B with 4N HCl*)
VDLUFA MB III 6.1.1 3. Suppl. 1993	Determination of crude fibre (modification: *ashing at 525° C*)
VDLUFA MB III 8.1 1976	Determination of crude ash (modification: *post-incineration with H_2O_2*)
VDLUFA MB III 8.2 1976	Determination of hydrochloric acid-insoluble ash
IFP 001330 2019-07	Gravimetric determination of dry matter in foods and feed (modification: *here only testing of feed*)
IFP 001303 2019-07	Gravimetric determination of total fat in foods and of crude fat in feed (modification: *here only testing of feed*)

IFP 001304 2019-07	Gravimetric determination of the content of ash as well as water-soluble and acid-insoluble ash in foods and feed (modification: *here only testing of feed*)

2.4 Titrimetric determination of ingredients and additives in feeding stuffs

VDLUFA MB III 4.1.1 3. Suppl. 1993	Determination of crude protein (modification: *automatic Kjeldahl system, titration against boric acid*)
IFP 001305 2019-07	Potentiometric determination of chloride in foods and feed by titration and calculation of salt (modification: *here only testing of feed*)
IFP 001307 2019-07	Titrimetric determination of crude protein content in foods and feed according to Kjeldahl (modification: *here only testing of feed*)

2.5 Polarimetric determination of ingredients and additives in feeding stuffs

VDLUFA MB III 7.2.1 8. Suppl. 2012	Determination of starch: Polarimetric method

2.6 Determination of vitamins using liquid chromatography with conventional detectors (DAD and fluorescence detector) in feeding stuffs

PV-166-VitA 2016-10	Determination of vitamin A (retinol) in feed; HPLC method
PV-168-VitE 2016-10	Determination of vitamin E in feed; HPLC method
PV-167-VitD 2016-10	Determination of vitamin D_3 in feed; HPLC method

2.7 Determination of residues and contaminants by liquid chromatography with tandem mass spectrometry in feeding stuffs

ASU L 00.00-115/1 2018-10	Testing of foods - New version of the multi-method for the determination of pesticide residues in plant foods using GC-MS and / or LC-MS / MS after acetonitrile extraction / distribution and clean-up with dispersive SPE (QuEChERS) (new version of method L 00.00-115 by the working group "pesticides" according to § 64 LFGB) (modification: *here for animal feed: fruit, oilseeds, cereals, milk and milk products, meat and meat products*)
PV-20-Pyrr 2018-02	Pyrrolizidine alkaloids in foods and feed (HPLC-MS / MS) (modification: *here only testing of feed*)
PV-199-gesCholinCarnitin 2019-04	Determination of the total choline and total carnitine content in baby foods, milk powder, milk-containing foods and animal feed with HPLC-MS / MS (modification: *here only testing of feed*)
PV-307-QuPPe 2016-10	Multimethod for the determination of polar pesticides by HPLC-MS/MS in foods of plant and animal origin, feed and water (modification: *here only testing of feed*)

2.8 Determination of residues by gas chromatography with conventional detector (GC-ECD) in feeding stuffs

PV-280-Dithio 2016-10	Determination of dithiocarbamates (calculated as CS_2) in plant foods and feed using HS-GC-ECD (modification: *here only testing of feed*)

2.9 Determination of residues and contaminants by gas chromatography with mass selective detector (GC-MS-MS) in feeding stuffs

ASU L 00.00-115/1 2018-10	Testing of foods - New version of the multi-method for the determination of pesticide residues in plant foods using GC-MS and / or LC-MS / MS after acetonitrile extraction / distribution and clean-up with dispersive SPE (QuEChERS) (new version of method L 00.00-115 by the working group "pesticides" according to § 64 LFGB) (modification: *here for animal feed: fruit, oilseeds, cereals, milk and milk products, meat and meat products; also for the determination of PCB*)

PV-218-PCB 2016-10	Determination of non-dioxin-like PCB (ndl-PCB) in foods and feed using GC-MS / MS (modification: *here only testing of feed*)

3 Microbiological analysis of foods, feeding stuffs and cosmetic products

3.1 Determination of bacteria, yeast and mould by cultural microbiological tests in foods *

DIN EN ISO 4833-1 2013-12	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms - Part 1: Colony-count at 30° C by the pour plate technique
DIN EN ISO 4833-2 2014-05	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms - Part 2: Colony count at 30°C by the surface plating technique
ASU L 00.00-88/1 2015-06	Testing of foods - Horizontal method for the enumeration of microorganisms - Part 1: Colony-count at 30°C by the pour plate technique (adoption of the homonymous standard DIN EN ISO 4833-1, edition December 2013)
ASU L 59.00-5 1988-05	Testing of foods - Determination of the colony count in natural mineral water, spring water and table water - Reference method

3.2 Determination of bacteria, yeasts and moulds by cultural microbiological tests in foods and feeding stuffs **

3.2.1 Salmonellae

DIN EN ISO 6579-1 2017-07	Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonellae - Part 1: Detection of Salmonella spp.
ASU L 00.00-20 2018-03	Testing of foods - Horizontal method for the detection, enumeration and serotyping of Salmonellae - Part 1: Detection of Salmonella spp. (adoption of the homonymous standard DIN EN ISO 6579-1, July 2017)

3.2.2 Enterobacteriaceae

DIN EN ISO 21528-1 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 1: Detection of Enterobacteriaceae
DIN EN ISO 21528-2 2019-05	Microbiology of the foods chain - Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 2: Colony-count technique
ASU L 05.00-5 1990-06	Testing of foods - Determination of Enterobacteriaceae in eggs, egg products, mayonnaises, emulsified sauces and cold ready-made sauces – pour plate technique (reference method)
ASU L 06.00-24 1987-11	Testing of foods - Determination of Enterobacteriaceae in meat – surface plating technique (reference method)

3.2.3 Coliforms bacteria

ISO 4831 2006-08	Microbiology of foods and feeding stuffs - Horizontal method for the detection and enumeration of coliforms - Most probable number technique
ISO 4832 2006-02	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of coliforms - Colony-count technique
ASU L 59.00-1 1988-05	Testing of foods - Detection of Escherichia coli and coliform bacteria in natural mineral water, spring water and table water - Reference method

3.2.4 Escherichia coli

ISO 7251 2005-02	Microbiology of foods and feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique
DIN ISO 16649-2 2009-12	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of β-glucuronidase-positive Escherichia coli - Part 2: Colony count technique at 44 ° C with 5-bromo-4-chloro-3-indole-β-D-glucuronide

DIN EN ISO 16649-3 2018-01	Microbiology of the food chain - Horizontal method for the enumeration of ß-glucuronidase positive Escherichia coli – Part 3: Detection and most probable number technique using 5-bromo-4-chloro-3-indolyl-ß-D-glucuronide
ASU L 01.00-25 1997-09 Corrigendum 2002-12	Testing of foods - Determination of Escherichia coli in milk, dairy products, butter, cheese and ice cream - method with liquid broth
ASU L 59.00-1 1988-05	Testing of foods - Detection of Escherichia coli and coliform bacteria in natural mineral water, spring water and table water - Reference method

3.2.5 Listeriae

ASU L 00.00-32/1 2018-03 Corrigendum 2018-06	Testing of foods - Horizontal method for the detection and enumeration of Listeria monocytogenes and Listeria spp. - Part 1: Detection method (adoption of the homonymous standard DIN EN ISO 11290-1, September 2017)

3.2.6 Yeasts and moulds

ISO 7954 1987-11	Microbiology - General guidance for enumeration of yeasts and moulds; Colony count technique at 25°C (*withdrawn document*)
ASU L 01.00-37 1991-12	Testing of foods - Determination of the number of yeasts and moulds in milk and dairy products; Reference method
ASU L 02.07-7 1987-06	Testing of foods - Determination of the number of yeasts and moulds in dry dairy products; Reference method
PV-153-HefSchiOsmo 2013-03	Test method for the determination of yeasts, osmotolerant yeasts, moulds and xerophilic moulds

3.2.7 Campylobacter

ASU L 00.00-107/1 2018-03	Testing of foods - Horizontal method for the detection and enumeration of Campylobacter spp. - part 1: detection method (adoption of the homonymous standard DIN EN ISO 10272-1, September 2017)

3.2.8 Enterococci

ASU L 06.00-32 2018-10	Testing of foods - Determination of Enterococcus faecalis and Enterococcus faecium in meat and meat products - surface plating technique (reference method) (adoption of the homonymous standard DIN 10106, April 2017)
ASU L 59.00-2 1988-05	Testing of foods - Detection of faecal streptococci in natural mineral water, spring water and table water - Reference method

3.2.9 Bacillus cereus

ASU L 00.00-33 2006-09 Corrigendum 2006-12	Testing of foods - Horizontal method for the enumeration of presumptive Bacillus cereus - Colony count technique at 30°C (adoption of the homonymous standard DIN EN ISO 7932, edition March 2004)

3.2.10 Clostridiae

ASU L 00.00-57 2006-12	Testing of foods - Method for the enumeration of Clostridium perfringens in foods - Colony count technique (adoption of the homonymous standard DIN EN ISO 7937, edition November 2004) (extension: *also for feed*)
ASU L 59.00-4 1988-05	Testing of foods - Detection of sulphite-reducing, spore-forming anaerobes in natural mineral water, spring water and table water - Reference method

3.2.11 Pseudomonas

ASU L 06.00-43 2011-06	Testing of foods - Enumeration of Pseudomonas spp. in meat and meat products (adoption of the homonymous standard DIN EN ISO 13720, edition December 2010)
ASU L 59.00-3 1988-05	Testing of foods - Detection of Pseudomonas aeruginosa in natural mineral water, spring and table water; Reference method

3.2.12 Staphylococci

ASU L 00.00-55 2004-12	Testing of foods - Method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) in foods - part 1: Method using Baird Parker Agar (adoption of the homonymous standard DIN EN ISO 6888-1, edition December 2003)

3.2.13 Lactobacilli

ISO 15214 1998-08	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of mesophilic lactic acid bacteria - Colony-count technique at 30°C

3.2.14 Cronobacter

DIN EN ISO 22964 2017-08	Microbiology of the food chain - Horizontal method for the detection of Cronobacter spp.

3.3 Identification of bacteria, yeasts and moulds by mass spectrometry (MALDI-TOF) in microbiological isolates, foods, feeding stuffs, cosmetics and surrounding area samples **

IFP 001589 2019-12	Identification of Gram-positive bacteria by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only in microbiological isolates, food, feed, cosmetics, surrounding area samples and raw materials from foods, feed and cosmetics industries*)
IFP 001597 2019-12	Identification of Gram-negative bacteria by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only in microbiological isolates, foods, feed, cosmetics, surrounding area samples and raw materials from foods, feed and cosmetics industries*)
IFP 001599 2019-12	Identification of moulds by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only in microbiological isolates, foods, feed, cosmetics, surrounding area samples and raw materials from foods, feed and cosmetics industries*)

IFP 001600 2019-12	Identification of yeasts by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only in microbiological isolates, foods, feed, cosmetics, surrounding area samples and raw materials from foods, feed and cosmetics industries*)
IFP 001601 2019-12	Identification of spore-forming microorganisms by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only in microbiological isolates, foods, feed, cosmetics, surrounding area samples and raw materials from foods, feed and cosmetics industries*)

3.4 Identification of microorganisms using infrared spectrometry in foods, feeding stuffs, cosmetics and surrounding area samples as well as microbiological isolates

PV-416 2018-04	Identification and differentiation of microorganisms using FT-IR spectrometry for foods, feed, raw materials and isolates

4 Testing of cosmetic products

4.1 Determination of bacteria, yeasts and moulds by cultural microbiological tests in cosmetic products *

Ph. Eur. 9.0, Edition 2019, Chapter 2.6.1	Sterility
Ph. Eur. 9.0, Edition 2019, Chapter 2.6.12	Microbiological examination of non-sterile products: microbial enumeration tests
Ph. Eur. 9.0, Edition 2019, Chapter 2.6.13	Microbiological examination of non-sterile products: test for specified micro organisms
Ph. Eur. 9.0, Edition 2019, Chapter 5.1.3	Efficacy of antimicrobial preservation

4.2 Biochemical tests of cosmetic products

Ph. Eur. 9.0, Edition 2019, Chapter 2.6.14	Testing for bacterial endotoxins

5 Molecular biological testing of foods and feeding stuffs

5.1 Qualitative detection of specific microorganisms using real-time PCR in foods and feeding stuffs **

5.1.1 Salmonellae

ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method
QIAGEN mericon™ Salmonella spp. Cat. No. 290013/290015 2011-02	Qualitative detection of salmonella in foods - real time PCR-method

5.1.2 Enterobacteriaceae

QIAGEN mericon™ Cronobacter spp. Cat. No. 290063/290065 2011-02	Qualitative detection of Cronobacter spp. in foods; Real-time PCR method
QIAGEN mericon™ Shigella spp. Cat. No. 290103/290105 2011-02	Qualitative detection of Shigella in foods - Real-time PCR method
QIAGEN mericon™ Y. enterocolitica Cat. No. 290113/290115 2011-02	Qualitative detection of Yersinia enterocolitica serotype 03 in foods - real time PCR-method

5.1.3 Escherichia coli

QIAGEN mericon™ VTEC stx 1/2 Cat. No. 290053/290055 2011-02	Qualitative detection of verotoxin producing Escherichia coli in foods - real time PCR-method

5.1.4 Listeriae

PV-28-PCR-PFRT-54 2014-04	Qualitative detection of Listeria monocytogenes in foods and feed by real time PCR
QIAGEN mericon™ L. monocytogenes Cat. No. 290023/290025 2011-02	Qualitative detection of Listeria monocytogenes in Foods - Real-time PCR method

5.1.5 Campylobacter

PV-28-PCR-PFRT-55 2014-04	Qualitative detection of Campylobacter in foods and feed by real-time PCR
QIAGEN mericon™ Campylobacter triple; Cat.No. 290043/290045 2011-02	Qualitative determination of Campylobacter jejuni, coli, and laridis in foods - Real-time PCR method
QIAGEN mericon™ Campylobacter spp. Cat.No. 290033/290035 2011-02	Qualitative detection of Campylobacter spp. in foods - Real-time PCR method

5.1.6 Staphylococci

QIAGEN mericon™ S. aureus Cat. No. 290073/290075 2011-02	Qualitative detection of Staphylococcus aureus in foods - Real-time PCR method

5.1.7 Noroviruses

ASU L 00.00-112 2007-12	Testing of foods - Qualitative detection of noroviruses of geno-groups I and II on smooth, solid surfaces of foods by real-time RT-PCR

5.1.8 Bacillus cereus

PV-28-PCR-PFRT-58 2014-04	Qualitative detection of B. cereus in foods and feed by real- time PCR

5.1.9 Clostridiae

PV-28-PCR-PFRT-60 2014-04	Qualitative detection of Clostridium perfringens in foods and feed by real- time PCR

5.2 Detection of genetically modified organisms in foods and feeding stuffs

5.2.1 Qualitative detection of genetically modified organisms by Real- Time PCR in foods and feeding stuffs **

ASU L 00.00-118 2014-02	Testing of foods - Methods for the detection of genetically modified organisms and derived products in foods - Qualitative nucleic acid based methods (adoption of the homonymous standard DIN EN ISO 21569, edition August 2013)
ASU L 00.00-119 2014-02	Testing of foods - Method for detection of genetically modified organisms and derived products in foods - Nucleic acid extraction (adoption of the homonymous standard DIN EN ISO 21571, edition August 2013)
ASU L 00.00-121 2014-02	Testing of foods - Method for detection of genetically modified organisms and derived products in foods - General requirements and definitions (Adoption of the homonymous standard DIN EN ISO 24276, edition October 2013)
ASU L 00.00-122 2008-06	Testing of foods - Detection of specific, often in genetically modified organisms (GMO) used DNA sequences from the cauliflower mosaic virus (CaMV 35S promoter, P35S) and Agrobacterium tumefaciens (T-nos) in foods - screening method
ASU L 00.00-124 2008-12	Testing of foods - Detection of a specific, often in genetically modified organisms (GMO) used DNA sequence of the bar gene from Streptomyces hygroscopicus in foodstuffs - Screening method
ASU L 00.00-125 2008-12 Corrigendum 2009-06	Testing of foods - Detection of CTP2-CP4-EPSPS- gene sequence to screen for components from genetically modified organisms (GMO) in foods - construct specific method

ASU L 15.06-1 2008-12	Testing of foods - Detection of genetically modified DNA sequence in rice products cryIA (c) T-nos construct specific method
PV-28-PCR-PF-19 2014-11	Qualitative detection of the 35S promoter of genetically modified organisms (GMO) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-20 2014-11	Qualitative detection of the nos- terminator of genetically modified organisms (GMO) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-21 2014-11	Qualitative detection of Roundup Ready soy (RRS) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-24 2014-11	Qualitative detection of MON810 maize in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-26 2014-11	Qualitative detection of BT176 maize in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-27 2014-11	Qualitative detection of BT11 maize in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-46 2014-11	Qualitative detection of LL601 rice in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-47 2014-11	Qualitative detection of LL62 rice in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-89 2014-11	Qualitative detection of BT63 rice in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-95 2014-11	Qualitative detection of the transition from CTP2 into the EPSPS gene from genetically modified organisms (GMO) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)

PV-28-PCR-PF-96 2014-11	Qualitative detection of the bar gene of genetically modified organisms (GMO) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)
PV-28-PCR-PF-97 2014-11	Qualitative detection of the transition from the 35S promoter into the pat- gene from genetically modified organisms (GMO) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feeding stuffs*)

5.2.2 Quantitative detection of genetically modified organisms by Real-time PCR in foods and feeding stuffs **

ASU L 00.00-105 2014-02	Testing of foods - Method for detection of genetically modified organisms and derived products - Quantitative nucleic acid based methods (Adoption of the homonymous standard DIN EN ISO 21570, edition August 2013) (modification: *here only Real- Time PCR*)
QIAGEN mericon™ Quant RRSoja Cat. No. 291113 2011-02	Quantitative determination of genetically modified soya (RRSoya) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feed*)
QIAGEN mericon™ Quant Mon810 Cat. No. 291073 2011-02	Quantitative determination of genetically modified maize (MON810 maize) in foods, feed and pharmaceutical raw products by real-time PCR (modification: *here only testing of foods and feed*)
PV-28-PCR-PF-21 2014-11	Quantitative determination of genetically modified organisms (GMO) in foods, feed and pharmaceutical raw products by real-time PCR using the example of Roundup Ready soy (RRSoya) (modification: *here only testing of foods and feed*)

6 Pharmaceuticals and active ingredients

6.1 Biological analysis of pharmaceuticals, active ingredients and excipients

6.1.1 Test for sterility *

Ph. Eur. 9.0, Edition 2019, Chapter 2.6.1	Sterility

6.1.2 Testing of non-sterile products *

Ph. Eur. 9.0, Edition 2019, Chapter 2.6.12	Microbiological examination of non-sterile products: microbial enumeration tests
Ph. Eur. 9.0, Edition 2019, Chapter 2.6.13	Microbiological examination of non-sterile products: test for specified micro-organisms
Ph. Eur. 9.0, Edition 2019 Chapter 2.6.31	Microbiological examination of herbal medicinal products for oral use and extracts used in their preparation
Ph. Eur. 9.0, Edition 2019, Chapter 5.1.3	Efficacy of antimicrobial preservation

6.1.3 Testing for bacterial endotoxins *

Ph. Eur. 9.0, Edition 2019, Chapter 2.6.14	Bacterial endotoxins

6.1.4 Identification of microorganisms

IFP 001589 2019-12	Identification of Gram-positive bacteria by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only for pharmaceutical products and raw materials*)
IFP 001597 2019-12	Identification of Gram-negative bacteria by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only for pharmaceutical products and raw materials*)
IFP 001599 2019-12	Identification of moulds by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only for pharmaceutical products and raw materials*)

IFP 001600 2019-12	Identification of yeasts by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only for pharmaceutical products and raw materials*)
IFP 001601 2019-12	Identification of spore-forming microorganisms by MALDI-TOF in microbiological isolates, foods, feed, cosmetics, pharmaceuticals, raw materials and surrounding area samples (Modification: *here only for pharmaceutical products and raw materials*)

7 Determination of animal and plant species by Real-time PCR in foods **

PV-28-PCR-PF-11 2014-11	Identification of apricot kernel in foods by real-time PCR
PV-28-PCR-PF-12 2014-11	Identification of pig in foods by real-time PCR
PV-28-PCR-PF-13 2014-11	Identification of cattle in foods by real-time PCR
PV-28-PCR-PF-16 2014-11	Identification of chicken in foods by real-time PCR
PV-28-PCR-PF-17 2014-11	Identification of turkey in foods by real-time PCR
PV-28-PCR-PF-65 2014-11	Identification of “Sargent Cherry“ (Prunus sargentii) in foods by real-time PCR

8 Determination of allergens in foods, process water, surrounding area samples from food processing as well as raw materials from the food industry

8.1 Qualitative detection of allergens using real-time PCR in foods, process water, surrounding area samples from food processing as well as raw materials from the food industry **

ASU L 08.00-56 2014-08	Testing of food - Detection of a specific DNA sequence of celery (Apium graveolens) in cooked sausages by real-time PCR (adoption of the homonymous standard DIN CEN / TS 15634-2, edition April 2012)
PV-28-PCR-PF-1 2017-04	Detection of hazelnut in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-2 2014-11	Detection of almond in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-3 2014-11	Detection of walnut in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-4 2014-11	Detection of pistachios in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-5 2014-11	Detection of peanuts in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-6 2014-11	Detection of wheat, barley and rye in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-7 2014-11	Detection of celery in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-8 2014-11	Detection of mustard in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR

PV-28-PCR-PF-9 2014-11	Detection of soy in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-33 2014-11	Detection of pecan in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-34 2014-11	Detection of Cashew in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-39 2014-11	Detection of brazil nut in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-40 2014-11	Detection of common wheat in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-41 2014-11	Detection of sesame in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-42 2014-11	Detection of lupine in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-100 2014-11	Detection of total wheat in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR
PV-28-PCR-PF-101 2014-11	Detection of macadamia nut in foods, semi-finished products, raw materials, waters from production processes and surrounding area samples by real-time PCR

8.2 Detection of allergens using enzyme immunoassay (ELISA) in foods **

ASU L 00.00-69 2003-12	Testing of foods - Determination of peanut contamination in food by ELISA using microtiter plate system
ASU L 44.00-7 2006-09	Testing of foods - Determination of hazelnut contamination in chocolate and chocolate products by ELISA using microtiter plate system
IFP GmbH ELISAFast® peanut A1002 2013-10	Detection of peanut in foods, waters from production processes and surrounding area samples using ELISA microtiter plate system
PV-02-Allerg-ELISA 2019-06	Detection of traces of allergens using ELISA microtiter plate system (egg, peanut, hazelnut, almond, casein, macadamia, pistachio, cashew, soy, sesame, lupine, whole milk, crustaceans, mustard, beta-lactoglobulin, Brazil nut, chickpea, gluten, alpha-lactalbumin, walnut)

8.3 Detection of allergens by ImmunoFast ® in foods, process water, surrounding area samples from food processing **

IFP GmbH ImmunoFast® Erdnuss / peanut IF1002 2019-07	Detection of peanut in foods, waters from production processes and surrounding area samples using immunological test strips (lateral flow)
PV-164-Allerg-IF 2019-06	Detection of traces of allergens using ImmunoFast®
PV-96-IF-PF-X 2019-07	Test method for the determination of allergens using ImmunoFast® (egg, chickpea, peanut, almond, hazelnut, soy, lupine, beta-lactoglobulin, gliadin, macadamia, cashew / pistachio, Brazil nut, walnut, sesame, casein, mustard, coconut, whole milk, Crustaceans)

9 Microbiological tests of foods and feeding stuffs for the determination of vitamins and vitamin precursors

9.1 Determination of vitamins and precursors using microbiological test systems in foods and feeding stuffs **

ASU L 00.00-87 2004-07	Testing of foods - Microbiological Determination of folate (Adoption of the homonymous standard DIN EN 14131, edition September 2003)
IFP GmbH; VitaFast® Folsäure/folic acid P1001 2016-10	Microbiological microtiter plate assays for the quantitative determination of folic acid (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Vitamin B12/ vitamin B12 P1002 2017-02	Microbiological microtiter plate assays for the quantitative determination of vitamin B_{12} (cyanocobalamin) (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Biotin/biotin P1003 2016-10	Microbiological microtiter plate assays for the quantitative determination of biotin (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Niacin/niacin P1004 2016-10	Microbiological microtiter plate assays for the quantitative determination of niacin (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Pantothensäure/ pantothenic acid P1005 2016-10	Microbiological microtiter plate assays for the quantitative determination of pantothenic acid (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Thiamin B1/ thiamine B1 P1006 2016-10	Microbiological microtiter plate assays for the quantitative determination of vitamin B_1 (thiamine) (*here for foods and feeding stuffs*)

IFP GmbH; VitaFast® Riboflavin B2 P1007 2016-10	Microbiological microtiter plate assays for the quantitative determination of vitamin B_2 (riboflavin) (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Pyridoxin B6 /pyridoxine B6 P1008 2016-10	Microbiological microtiter plate assays for the quantitative determination of vitamin B_6 (pyridoxine) (*here for foods and feeding stuffs*)
IFP GmbH; VitaFast® Inositol/inositol P 1009 2016-10	Microbiological microtiter plate assays for the quantitative determination of inositol (*here for foods and feeding stuffs*)
PV-11-Vit-MiBi 2014-06	Microbiological detection of water-soluble vitamins (*here for foods and feeding stuffs*)

10 Sensory methods of food analysis

ASU L 00.90-6 2015-06	Testing of foods - Sensory analysis - Simple descriptive test (adoption of the homonymous standard DIN 10964, edition November 2014)
ASU L-00.90-4 2011-01	Testing of foods - Sensory analysis - Methodology - Ranking (adoption of the homonymous standard DIN ISO 8587, edition August 2010)
ASU L 00.90-7 2007-12	Testing of foods - Sensory analysis - Methodology - Triangle test (adoption of the homonymous standard DIN EN ISO 4120, edition October 2007)

11 Test methods according the German drinking water directive - TrinkwV

Sampling

Method	Title
DIN EN ISO 5667-1 (A 4) 2007-04	Guidance on the design of sampling programmes and sampling techniques
DIN ISO 5667-5 (A 14) 2011-02	Guidance on sampling of drinking water from treatment works and piped distribution systems
DIN EN ISO 5667-3 (A 21) 2013-03	Water quality - Sampling - Part 3: Preservation and handling of water samples
DIN EN ISO 19458 (K 19) 2006-12	Water quality - Sampling for microbiological analysis
Recommendation of Umweltbundesamt 18. December 2018	Evaluation of drinking water quality in terms of the parameters lead, copper and nickel

ANNEX 1: MICROBIOLOGICAL PARAMETERS

PART I: General requirements for drinking water

No.	Parameter	Method
1	Escherichia coli (E. coli)	DIN EN ISO 9308-1 2017-09
		DIN EN ISO 9308-2:2014-06
2	Enterococci	DIN EN ISO 7899-2 (K15) 2000-11

PART II: Requirements for drinking water, which is intended to be submitted in sealed containers

No.	Parameter	Method
1	Escherichia coli (E. coli)	DIN EN ISO 9308-1 2017-09
		DIN EN ISO 9308-2:2014-06
2	Enterococci	DIN EN ISO 7899-2 (K 15) 2000-11
3	Pseudomonas aeruginosa	DIN EN ISO 16266 (K 11) 2008-05

ANNEX 2: CHEMICAL PARAMETERS

PART I: Chemical parameters, of which the concentration usually not increases in the distribution network including the drinking water installation

No.	Parameter	Method
1	Acrylamide	not used
2	Benzene	not used
3	Boron	DIN EN ISO 17294-2 (E 29) 2017-01
4	Bromate	DIN EN ISO 15061 2001-12
5	Chromium	DIN EN ISO 17294-2 (E 29) 2017-01 DIN EN 1233 (E 10) 1996-08
6	Cyanide	not used
7	1,2-Dichlorethane	not used
8	Fluoride	DIN EN ISO 10304-1 (D20) 2009-07
9	Nitrate	DIN EN ISO 10304-1 (D20) 2009-07
10	Pesticides and biocides	DIN EN 15662 2018-07
11	Pesticides and biocides in total	DIN EN 15662 2018-07
12	Mercury	DIN EN ISO 12846 (E12) 2012-08 DIN EN ISO 17294-2 (E 29) 2017-01
13	Selenium	DIN EN ISO 17294-2 (E 29) 2017-01
14	Tetrachlorethene and Trichlorethene	not used
15	Uranium	DIN EN ISO 17294-2 (E 29) 2017-01

PART II: Chemical parameters, of which the concentration may increase in the distribution network including the drinking water installation

No.	Parameter	Method
1	Antimony	DIN EN ISO 17294-2 (E 29) 2017-01
2	Arsenic	DIN EN ISO 17294-2 (E 29) 2017-01
3	Benzo-(a)-pyrene	not used
4	Lead	DIN 38406-E 6 1998-07 DIN EN ISO 17294-2 (E 29) 2017-01
5	Cadmium	DIN EN ISO 5961 (E 19) 1995-05 DIN EN ISO 17294-2 (E 29) 2017-01 DIN EN ISO 15586 (E 4) 2004-02
6	Epichlorhydrine	not used
7	Copper	DIN 38406-E 7 1991-09 DIN EN ISO 17294-2 (E 29) 2017-01 DIN EN ISO 15586 (E 4) 2004-02
8	Nickel	DIN 38406-E11 1991-09 DIN EN ISO 17294-2 (E 29) 2017-01 DIN EN ISO 15586 (E 4) 2004-02

No.	Parameter	Method
9	Nitrite	DIN EN ISO 10304-1 (D20) 2009-07
10	Polycyclic aromatic hydrocarbons	not used
11	Trihalomethanes (THM)	not used
12	Vinyl chloride	not used

ANNEX 3: INDICATOR PARAMETERS

PART I: General indicator parameters

No.	Parameter	Method
1	Aluminium	DIN EN ISO 17294-2 (E 29) 2017-01
2	Ammonium	DIN EN ISO 14911 (E 34) 1999-12
3	Chloride	DIN EN ISO 10304-1 (D 20) 2009-07
4	Clostridium perfringens (incl. spores)	DIN EN ISO 14189 (K 24): 2016-11
5	Coliform bacteria	DIN EN ISO 9308-1 (K 12) 2017-09
		DIN EN ISO 9308-2: (K 6-1) 2014-06
6	Iron	DIN 38406-E 32 2000-05
		DIN EN ISO 15586 (E 4) 2004-02
		DIN EN ISO 17294-2 (E 29) 2017-01
7	Colour (spectral absorption coefficient Hg 436 nm)	DIN EN ISO 7887 (C 1-2) 2012-04
8	Odour	DIN EN 1622 (B3) 2006-10 (Annex C)
9	Taste	DEV B 1/2 part a 1971
10	Colony count at 22 °C	DIN EN ISO 6222 (K 5) 1999-07
		TrinkwV § 15 par. (1c)
11	Colony count at 36 °C	DIN EN ISO 6222 (K 5) 1999-07
		TrinkwV § 15 par. (1c)
12	Electrical conductivity	DIN EN 27888 (C 8) 1993-11
13	Manganese	DIN 38406-E 33 2000-06
		DIN EN ISO 15586 (E 4) 2004-02
		DIN EN ISO 17294-2 (E 29) 2017-01
14	Sodium	DIN 38406-E 14 1992-07
		DIN EN ISO 14911 (E 34) 1999-12
		DIN ISO 9964-3 (E 27) 1996-08
		DIN EN ISO 17294-2 (E 29) 2017-01
15	Total organic carbon (TOC)	DIN EN 1484 (H 3) 1997-08
16	Oxidisability	DIN EN ISO 8467 (H 5) 1995-05
17	Sulphate	DIN EN ISO 10304-1 (D20) 2009-07
18	Turbidity	DIN EN ISO 7027 (C 2) 2000-04
19	Concentration of hydrogen ions	DIN EN ISO 10523 (C 5) 2012-04
20	Capacity for solubility of calcite	not used

PART II: Special requirements for drinking water in systems of the drinking water installation

Parameter	Method
Legionella spec.	ISO 11731 2017-05 Recommendation of the German Federal Environment Agency "Systemic testing of drinking water installations on Legionella according to the Drinking Water Directive - Sampling, testing and reporting of the result" from December 18, 2018

ANNEX 3a: Requirements for drinking water in relation to radioactive substances

not used

Parameters, which are not mentioned in annex 1 to 3 of the German drinking water directive

Further periodical analysis

Parameter	Method
Calcium	DIN EN ISO 7980 (E 3a) 2000-07
	DIN EN ISO 14911 (E 34) 1999-12
	DIN EN ISO 17294-2 (E 29) 2017-01
Potassium	DIN EN ISO 14911 (E 34) 1999-12 DIN EN ISO 17294-2 (E 29) 2017-01
Magnesium	DIN EN ISO 14911 (E 34) 1999-12
	DIN EN ISO 7980 (E 3a) 2000-07
	DIN EN ISO 17294-2 (E 29) 2017-01
Acid and base- neutralizing capacities	DIN 38409-H 7 2005-12
Phosphate	DIN EN ISO 10304-1 (D 20) 2009-07

The accreditation does not replace the recognition or approval of the competent authority according to § 15 par. 4 TrinkwV.

12 Testing of water (drinking water, swimming and swimming bath water as well as water from recooling plants)

12.1 Sampling

DIN 38402-A 19 1988-04	Sampling of water of swimming pools and baths
DIN EN ISO 5667-3 (A 21) 2019-07	Water quality - Sampling - Part 3: Preservation and handling of water samples
DIN EN ISO 19458 (K 19) 2006-12	Water quality - Sampling for microbiological analysis

DIN 19643 part 1 2012-11	Treatment of water of swimming pools and baths - Part 1: General requirements - point 14.2 Sampling
PV-241-PNBB 2013-04	Sampling of water from swimming pools
VDI 2047 part 2 2019-01	Recooling plants - ensuring the hygienic operation of evaporative cooling systems (VDI cooling tower rules) (modification: *here only sampling of water from recooling plants*)

12.2 Microbiological analysis

DIN EN ISO 6222 (K5) 1999-07	Water quality - Enumeration of culturable microorganisms - Colony count by inoculation in a nutrient agar culture medium
DIN EN ISO 16266 (K 11) 2008-05	Water quality - Detection and enumeration of Pseudomonas aeruginosa - Method by membrane filtration (here also: *water from recooling plants*)
DIN EN ISO 9308-1 (K 12) 2017-09	Water quality - Enumeration of Escherichia coli and coliform bacteria - Part 1: Membrane filtration method for waters with low bacterial background flora
DIN EN ISO 11731 2019-03	Water quality - Enumeration of Legionella
DIN EN ISO 9308-2 2014-06	Water quality - Enumeration of Escherichia coli and coliform bacteria - Part 2: Most probable number method
TrinkwV 2018 §15 Abs. 1c	Colony count at 22°C and 36°C (here also: *water from recooling plants*)

12.3 Physical, physical- chemical and chemical analysis

DIN EN ISO 7887 (C 1) 2012-04	Water quality - Examination and determination of colour
DIN EN ISO 7027-1 (C 2) 2016-11	Water quality - Determination of turbidity - Part 1: Quantitative methods
DIN EN ISO 7027-2 2019-06	Water quality - Determination of turbidity - Part 2: Semi-quantitative methods for the assessment of transparency of waters

DIN 38404-4 (C 4) 1976-12	Determination of Temperature
DIN EN ISO 10523 (C 5) 2012-04	Water quality - Determination of pH (here also: *water from recooling plants*)
DIN EN ISO 10304-1 (D 20) 2009-07	Water quality - Determination of dissolved anions by liquid chromatography of ions - Part 1: Determination of bromide, chloride, fluoride, nitrate, nitrite, phosphate and sulphate (modification: *here for determination of nitrate, bromide and phosphate*)
DIN EN ISO 15586 (E 4) 2004-02	Water quality - Determination of trace elements using atomic absorption spectrometry with graphite furnace (modification: *here for iron*)
DIN 38406-E 8 2004-10	Determination of zinc - Method by atomic absorption spectrometry (AAS) using an air-ethine flame
DIN EN ISO 17294-2 (E 29) 2017-01	Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 2: Determination of selected elements including uranium isotopes
DIN 38406-32 (E 32) 2000-05	Determination of iron by atomic absorption spectrometry
DIN 38407-30 (F 30) 2007-12	Jointly determinable substances (group F) - Part 30: Determination of trihalogenmethanes in bathing water and pool water with headspace-gas chromatography
DIN EN ISO 7393-2 (G 4-2) 2019-03	Water quality - Determination of free chlorine and total chlorine - Part 2: Colorimetric method using N,N-diethyl-1,4-phenylene-diamine, for routine control purposes
DIN EN ISO 8467 (H 5) 1995-05	Water quality - Determination of permanganate index
DIN 38409-7 (H 7) 2005-12	Parameters characterizing effects and substances (group H) - Part 7: Determination of acid and base-neutralizing capacities
DIN EN ISO 15061 2001-12	Water quality - Determination of dissolved bromate - Method by liquid chromatography of ions
DIN EN ISO 10304-4 1999-07	Water quality - Determination of dissolved anions by liquid chromatography of ions - Part 4: Determination of chlorate, chloride and chlorite in water with low contamination

DIN EN 1484 2019-04	Water analysis - Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)
PV-307-QuPPe 2016-10	Multimethod for the determination of polar pesticides in foods of plant and animal origin, feeding stuffs and water using HPLC-MS / MS
PV-375-AZM-direkt 2016-10	Determination of pharmaceuticals in water by direct injection (LC-MS / MS)

13 Sampling and microbiological analysis of industrial water in accordance with § 3 (8) of 42nd BImSchV

Sampling

Method	Title
DIN EN ISO 19458 (K 19) 2006-12	Water quality - Sampling for microbiological analysis
	Recommendation of the Federal Environmental Agency for the sampling and detection of Legionella in evaporative cooling plants, cooling towers and wet scrubbers dated 02.06.2017, Section C and D

Microbiological analysis

Parameter	Method
Legionellae	ISO 11731 2017-05
	Recommendation of the Federal Environmental Agency for the sampling and detection of Legionella in evaporative cooling plants, cooling towers and wet scrubbers dated 02.06.2017, Sections E and F taking into account Annexes 1 and 2
Colony count at 22°C and 36 °C	DIN EN ISO 6222 (K 5) 1999-07

14 Healthcare (Hygiene)

14.1 Microbiological and hygienic tests

14.1.1 Cultural procedures (Dental water) **

Bundesgesundheitsbl. – Gesundheitsforsch. – Gesundheitsschutz 2006; Volume 49: p.: 375 – 394	Infection prevention in dentistry - hygiene requirements; Communication from the Commission for Hospital Hygiene and Infection Prevention at the Robert Koch Institute (Here: *for sampling*)
DIN EN ISO 6222 (K 5) 1999-07	Water quality - Enumeration of culturable micro-organisms - Colony count by inoculation in a nutrient agar culture medium
DIN EN ISO 16266 (K 11) 2008-05	Water quality - Detection and enumeration of Pseudomonas aeruginosa - Method by membrane filtration
ISO 11731 2017-05	Water quality - Enumeration of Legionella
ASU L 06.00-43 2011-06	Testing of foods - Counting of Pseudomonas spp. in meat and meat products (adoption of homonymous standard DIN EN ISO 13720, Edition December 2010) (modification: *for dental water only*)
TrinkwV § 15 Abs. 1c	Colony count at 22°C and 36°C
PV 401-QLeg 2017-01	Quantitative cultural method for the determination of Legionella in water

15 Analysis of plastics in contact with foods

15.1 Determination of migrating additives and contaminants by gravimetry in plastics *

DIN EN 1186-1 2002-07	Materials and articles in contact with foodstuffs - Plastics – Part 1: Guide to the selection of conditions and test methods for overall migration
DIN EN 1186-5 2002-07	Materials and articles in contact with foodstuffs - Plastics – Part 5: Test methods for overall migration into aqueous food simulants by cell

DIN EN 1186-9 2002-07	Materials and articles in contact with foodstuffs - Plastics – Part 9: Test methods for overall migration into aqueous simulants by article filling
DIN EN 1186-14 2002-02	Materials and articles in contact with foodstuffs - Plastics – Part 14: Test methods for 'substitute tests' for overall migration from plastics intended to come into contact with fatty foodstuffs using test media iso-octane and 95 % ethanol
DIN EN 1186-15 2002-12	Materials and articles in contact with foodstuffs - Plastics – Part 15: Alternative test methods to migration into fatty food simulants by rapid extraction into iso-octane and/or 95 % ethanol

15.2 Determination of migrating additives and contaminants by gas chromatography with mass selective detector (GC-MS/MS) in plastics **

IFP 001332 2019-10	Determination of photoinitiators in foods simulants by GC-MS / MS
IFP 000395 2019-07	Determination of 4-nonylphenol in foods simulants by GC-MS / MS
IFP 001148 2019-07	Determination of plasticizers in foods simulants using GC-MS / MS

15.3 Determination of migrating additives and contaminants by gas chromatography with mass selective detector (GC-MS) in plastics **

IFP 000426 2019-02	Determination of 1,3-butadiene in foods simulants by HS-GC-MS
IFP 000480 2019-10	Determination of styrene compounds in foods simulants by HS-GC-MS
PV-394-sM-EthylDiethyl 2017-01	Determination of ethylene glycol and diethylene glycol in foods simulants using GC-MS
IFP 000556 2019-04	Determination of vinyl compounds in foods simulants by HS-GC-MS
IFP 000784 2019-07	Gas chromatographic determination of mineral oil hydrocarbons in foods and packaging materials

15.4 Determination of migrating additives and contaminants by liquid chromatography with mass selective detector (LC-MS-MS) in plastics **

DIN EN 13130-1 2004-08	Materials and articles in contact with foodstuffs - Plastics substances subject to limitation - Part 1: Guide to test methods for the specific migration of substances from plastics to foods and food simulants and the determination of substances in plastics and the selection of conditions of exposure to food simulants
V DIN CEN/TS 13130-10 2005-05	Materials and articles in contact with foodstuffs - Plastics substances subject to limitation - Part 10: Determination of acrylamide in food simulants (Modification: *Determination by means of HPLC-MS/MS*)
V DIN CEN/TS 13130-13 2005-05	Materials and articles in contact with foodstuffs - Plastics substances subject to limitation - Part 13: Determination of 2,2-bis(4-hydroxyphenyl)propane (Bisphenol A) in food simulants (Modification: *Determination by means of HPLC-MS/MS*)
V DIN CEN/TS 13130-27 2005-05	Materials and articles in contact with foodstuffs - Plastics substances subject to limitation - Part 27: Determination of 2,4,6-triamino-1,3,5-triazine in food simulants (Modification: *Determination by means of HPLC-MS/MS*)
ifp 000521 2019-10	Determination of bisphenols, bisphenol derivatives and novalacglycidyl ether in food simulants using LC-MS / MS

15.5 Determination of elements after migration using inductively coupled plasma mass spectrometry (ICP-MS) in plastics **

PV-387-SpMiEl 2016-09	Determination of elements after migration using inductively coupled plasma mass spectrometry (ICP/MS)

16 Microbiological tests on surfaces of furnishings and consumer goods in the food sector

16.1 Determination of bacteria, yeasts and moulds by cultural microbiological tests on surfaces of furnishings and consumer goods in the food sector *

ISO 7251 2005-02	Microbiology of foods and feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique (modification: *also for dip-slide, wipe and swap samples*)
DIN EN ISO 21528-1 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae - Part 1: Detection of Enterobacteriaceae (modification: *also for dip-slide, wipe and swap samples*)
DIN EN ISO 6579-1 2017-07	Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp. (modification: *also for dip-slide, wipe and swap samples*)
DIN 10113-1 1997-07	Determination of surface colony count on furnishings and consumer goods in the food sector - Part 1: Quantitative swab method
DIN 10113-2 1997-07	Determination of surface colony count on furnishings and consumer goods in the food sector - Part 2: Semi-quantitative swab method
DIN 10113-3 1997-07	Determination of surface colony count on furnishings and consumer goods in the food sector - Part 3: Semi-quantitative method with culture media laminated sampling equipment (Dip-slide method)
ASU L 00.00-32/1 2018-03 Corrigendum 2018-06	Testing of foods – Horizontal method for the detection and enumeration of Listeria monocytogenes and Listeria spp. - Part 1: Detection method (adoption of the homonymous standard DIN EN ISO 11290-1, September 2017)
ASU L 00.00-33 2006-09 Corrigendum 2006-12	Testing of foods – General instructions to the counting of presumptive Bacillus cereus - colony count technique at 30 ° C (adoption of the homonymous standard DIN EN ISO 7932, Edition March 2004) (modification: *also for dip-slide, wipe and swap samples*)

ASU L 00.00-55 2004-12	Testing of foods – Procedure for the counting of coagulase positive staphylococci (Staphylococcus aureus and other species) in foods - part 1: procedure by means of Baird Parker agar (adoption of the homonymous standard DIN EN ISO 6888-1, Edition December 2003) (modification: *also for dip-slide, wipe and swap samples*)
ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method (modification: also for dip-slide, wipe and swap samples)

16.2 Determination of Salmonellae using real-time PCR

ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method (modification: *also for dip-slide, wipe and swap samples*)

Branch Leipzig

1 Microbiological testing of foods

1.1 Determination of bacteria, yeasts and moulds in foods using cultural microbiological tests *

DIN EN ISO 4833-1 2013-12	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms - Part 1: Colony-count at 30°C by the pour plate technique
DIN EN ISO 4833-2 2014-05	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms - Part 2: Colony count at 30°C by the surface plating technique

1.2 Determination of bacteria, yeasts and moulds in foods using cultural microbiological tests *

1.2.1 Salmonellae

DIN EN ISO 6579-1 2017-07	Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp. (Restriction: *without Appendix D*)

1.2.2 Enterobacteriaceae

DIN EN ISO 21528-1 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 1: Detection of Enterobacteriaceae
DIN EN ISO 21528-2 2019-05	Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 2: Colony-count technique

1.2.3 Coliforms bacteria

ISO 4831 2006-08	Microbiology of foods and feeding stuffs - Horizontal method for the detection and enumeration of coliforms - Most probable number technique (Restriction: *here only detection*)
ISO 4832 2006-02	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of coliforms - Colony-count technique

1.2.4 Escherichia coli

ISO 7251 2005-02	Microbiology of foods and feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique (Restriction: *here only detection*)
DIN ISO 16649-2 2009-12	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of β-glucuronidase-positive Escherichia coli - Part 2: Colony-count technique at 44 °C using 5-bromo-4-chloro-3-indolyl β-D-glucuronide

1.2.5 Listeriae

DIN EN ISO 11290-1 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. - Part 1: Detection method
DIN EN ISO 11290-2 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. - Part 2: Enumeration method

1.2.6 Yeasts and moulds

ISO 21527-1 2008-07	Horizontal method for the enumeration of yeasts and moulds - Colony count technique- Part 1: products with water activity greater than 0,95
ISO 21527-2 2008-07	Horizontal method for the enumeration of yeasts and moulds - Colony count technique - Part 2: products with water activity less than or equal to 0,95
PV-153-HefSchiOsmo 2013-03	Test method for the determination of yeasts, osmotolerant yeasts, moulds and xerophilic moulds

1.2.7 Enterococci

ASU L 06.00-32 2018-10	Testing of foods - Determination of Enterococcus faecalis and Enterococcus faecium in meat and meat products - Spatula method (reference method) (adoption of the homonymous standard DIN 10106, April 2017)

1.2.8 Bacillus cereus

ASU L 00.00-33 2006-09 Corrigendum 2006-12	Testing of foods - Horizontal method for the enumeration of presumptive Bacillus cereus - Colony count technique at 30°C (adoption of the homonymous standard DIN EN ISO 7932, Edition March 2004)

1.2.9 Clostridia

ISO 15213 2003-05	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of sulphite-reducing bacteria growing under anaerobic conditions
ASU L 00.00-57 2006-12	Testing of foods - Method for the enumeration of Clostridium perfringens in foods - Colony count technique (adoption of the homonymous standard DIN EN ISO 7937, Edition November 2004)

1.2.10 Pseudomonas

ASU L 06.00-43 2011-06	Testing of foods - Enumeration of Pseudomonas spp. in meat and meat products (adoption of homonymous standard DIN EN ISO 7937, Edition November 2004)

1.2.11 Staphylococci

ISO 6888-1 1999-02 AMD 1:2003-07	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 1: Technique using Baird-Parker agar medium
ISO 6888-3 2003-03	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 3: Detection and MPN technique for low numbers (Restriction: *here only detection*)

1.2.12 Lactobacilli

ISO 15214 1998-08	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of mesophilic lactic acid bacteria - Colony-count technique at 30°C
ASU L 06.00-35 2017-10	Testing of foods - Determination of aerobic grown lactic acid bacteria in meat and meat products - Spatula method (Reference method) (adoption of the homonymous standard DIN 10109, Edition May 2016)

2 Molecular biological analysis of foods

2.1 Qualitative detection of specific microorganisms in foods by Real-Time PCR **

2.1.1 Listeriae

ASU L 00.00-95(V) 2006-12	Testing of foods - Qualitative detection of Listeria monocytogenes in foods - PCR method *(deviation: Detection by Real- Time PCR)*

PV-28-PCR-PF-108 2016-11	Detection of Listeria spp. by PCR in foods and surrounding area samples in the context of hygiene monitoring *(deviation: Detection by Real- Time PCR; here only for analysis of foods)*
QIAGEN mericon™ L. monocytogenes Cat. No. 290023/290025 2011-02	Qualitative detection of Listeria monocytogenes in Foods - Real-time PCR method

2.1.2 Salmonellae

ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method
QIAGEN mericon™ Salmonella spp. Cat. No. 290013/290015 2011-02	Qualitative detection of salmonella in foods - real time PCR-method

2.1.3 Campylobacter

QIAGEN mericon™ Campylobacter spp. Cat. No. 290033/290035 2011-02	Qualitative detection of Campylobacter spp. in foods - real time PCR-method

3 Microbiological testing on surfaces of furnishings and consumer goods in the food sector

3.1 Determination of bacteria, yeasts and moulds by means of cultural microbiological testing on surfaces of furnishings and consumer goods in the food sector *

DIN ISO 18593 2018-10	Microbiology of the food chain - Horizontal methods for surface sampling
DIN EN ISO 6579-01 2017-07	Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp. (deviation: *here for dip-slide, wipe and swap samples*)

DIN 10113-1 1997-07	Determination of surface colony count on fitment and utensils in food areas - Part 1: Quantitative swab method
DIN 10113-2 1997-07	Determination of surface colony count on fitment and utensils in food areas - Part 2: Semi-quantitative swab method
DIN 10113-3 1997-07	Determination of surface colony count on fitment and utensils in food areas - Part 3: Semi-quantitative method with culture media laminated sampling equipment (Dip-slide method)

3.2 Determination of bacteria by Real- Time - PCR on surfaces of furnishings and consumer goods in the food sector **

ASU L 00.00-95(V) 2006-12	Testing of foods - Qualitative detection of Listeria monocytogenes in foods - PCR method (modification: *here for dip-slide, wipe and swap samples*) *(detection by Real- Time PCR)*
ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method (modification: *here for dip-slide, wipe and swap samples*)
PV-28-PCR-PFRT-54 2014-04	Qualitative detection of Listeria monocytogenes in foods and feeding stuffs by real time PCR (modification: *here for dip-slide, wipe and swap samples*)
PV-28-PCR-PF-108 2016-11	Detection of Listeria spp. by PCR in foods and surrounding area samples in the context of hygiene monitoring (Deviation: detection by Real- Time PCR)

4 Sampling and determination of airborne microbes using cultural microbiological tests in surrounding samples in the food sector

PV-293-LKZ 2015-09	Test method for the determination of the content microorganisms of surrounding area hygiene samples (air)
PV-415 – LKZ 2017-07	Sampling of airborne microbes and determination of the number of airborne microbes in production areas of food processing plants and other indoor areas

5 Test methods according the German drinking water directive - TrinkwV

Sampling

Method	Title
DIN EN ISO 5667-1 (A 4) 2007-04	Guidance on the design of sampling programmes and sampling techniques
DIN EN ISO 19458 (K 19) 2006-12	Water quality - Sampling for microbiological analysis

ANNEX 1: MICROBIOLOGICAL PARAMETERS

PART I: General requirements for drinking water

No.	Parameter	Method
1	Escherichia coli (E. coli)	DIN EN ISO 9308-1 (K 12) 2017-09
		DIN EN ISO 9308-2 (K 6-1) 2014-06
2	Enterococci	DIN EN ISO 7899-2 (K 15) 2000-11

PART II: Requirements for drinking water, which is intended to be submitted in sealed containers

No.	Parameter	Method
1	Escherichia coli (E. coli)	DIN EN ISO 9308-1 (K 12) 2017-09
		DIN EN ISO 9308-2 (K 6-1) 2014-06
2	Enterococci	DIN EN ISO 7899-2 (K 15) 2000-11
3	Pseudomonas aeruginosa	DIN EN ISO 16266 (K 11) 2008-05

ANNEX 2: CHEMICAL PARAMETERS

PART I: Chemical parameters, of which the concentration usually not increases in the distribution network including the drinking water installation

not used

PART II: Chemical parameters, of which the concentration may increase in the distribution network including the drinking water installation

not used

ANNEX 3: INDICATOR PARAMETERS

PART I: General indicator parameters

No.	Parameter	Method
1	Aluminium	not used
2	Ammonium	not used
3	Chloride	not used
4	Clostridium perfringens (incl. spores)	DIN EN ISO 14189 (K 24) 2016-11

No.	Parameter	Method
5	Coliform bacteria	DIN EN ISO 9308-1 (K 12) 2017-09
		DIN EN ISO 9308-2 (K 6-1) 2014-06
6	Iron	not used
7	Colour (spectral absorption coefficient Hg 436 nm)	not used
8	Odour (TON)	not used
		not used
9	Taste	not used
10	Colony count at 22 °C	DIN EN ISO 6222 (K 5) 1999-07
		TrinkwV §15 par. (1c)
11	Colony count at 36 °C	DIN EN ISO 6222 (K 5) 1999-07
		TrinkwV §15 par. (1c)
12	Electrical conductivity	not used
13	Manganese	not used
14	Sodium	not used
15	Total organic carbon (TOC)	not used
16	Oxidisability	not used
17	Sulphate	not used
18	Turbidity	not used
19	Concentration of hydrogen ions	not used
20	Capacity for solubility of calcite	not used

PART II: Special requirements for drinking water in systems of the drinking water installation

Parameter	Method
Legionella spec.	ISO 11731 2017-05 UBA Recommendation 18. December 2018

ANNEX 3a: Requirements for drinking water in relation to radioactive substances
not used

Parameters, which are not mentioned in annex 1 to 3 of the German drinking water directive
Further periodical analysis
not used

The accreditation does not replace the recognition or approval of the competent authority according to § 15 par. 4 TrinkwV.

Branch Ohrdruf

1 Microbiological testing of foods

1.1 Determination of bacteria, yeasts and moulds by microbiological cultural tests in foods *

DIN EN ISO 4833-1 2013-12	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms - Part 1: Colony-count at 30°C by the pour plate technique
DIN EN ISO 4833-2 2014-05	Microbiology of the food chain - Horizontal method for the enumeration of microorganisms - Part 2: Colony count at 30°C by the surface plating technique

1.2 Determination of bacteria, yeasts and moulds by microbiological cultural tests in foods *

1.2.1 Salmonellae

DIN EN ISO 6579-1 2017-07	Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp. (Restriction: *without Appendix D*)

1.2.2 Enterobacteriaceae

DIN EN ISO 21528-1 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 1: Detection of Enterobacteriaceae
DIN EN ISO 21528-2 2019-05	Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae – Part 2: Colony-count technique

1.2.3 Coliforms bacteria

ISO 4831 2006-08	Microbiology of food and feeding stuffs - Horizontal method for the detection and enumeration of coliforms - Most probable number technique (modification: *here only detection*)
ISO 4832 2006-02	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of coliforms - Colony-count technique

1.2.4 Escherichia coli

ISO 7251 2005-02	Microbiology of foods and feeding stuffs - Horizontal method for the detection and enumeration of presumptive Escherichia coli - Most probable number technique (modification: *here only detection*)
DIN ISO 16649-2 2009-12	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of β-glucuronidase-positive Escherichia coli - Part 2: Colony-count technique at 44 °C using 5-bromo-4-chloro-3-indolyl β-D-glucuronide

1.2.5 Yeasts and moulds

ISO 21527-1 2008-07	Horizontal method for the enumeration of yeasts and moulds - Colony count technique- Part 1: products with water activity greater than 0,95
ISO 21527-2 2008-07	Horizontal method for the enumeration of yeasts and moulds - Colony count technique- Part 2: products with water activity less than or equal to 0,95
PV-153-HefSchiOsmo 2013-03	Test method for the determination of yeasts, osmotolerant yeasts, moulds and xerophilic moulds

1.2.6 Enterococci

ASU L 06.00-32 2018-10	Testing of foods - Determination of Enterococcus faecalis and Enterococcus faecium in meat and meat products - Spatula method (reference method) (adoption of the homonymous standard DIN 10106, April 2017)

1.2.7 Staphylococci

DIN EN ISO 6888-1 2019-06	Microbiology of foods 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 6888-3 2005-07	Microbiology of foods and animal feeding stuffs - Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) - Part 3: Detection and MPN technique for low numbers (modification: *here only detection*)

1.2.8 Bacillus cereus

ASU L 00.00-33 2006-09 Corrigendum 2006-12	Testing of foods - Horizontal method for the enumeration of presumptive Bacillus cereus - Colony count technique at 30°C (adoption of homonymous standard DIN EN ISO 7932, Edition March 2004)

1.2.9 Clostridia

ASU L 00.00-57 2006-12	Testing of foods - Method for the enumeration of Clostridium perfringens in foods - Colony count technique (adoption of the homonymous standard DIN EN ISO 7937, Edition November 2004)

1.2.10 Listeriae

DIN EN ISO 11290-1 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. - Part 1: Detection method
DIN EN ISO 11290-2 2017-09	Microbiology of the food chain - Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. - Part 2: Enumeration method

1.2.11 Lactobacilli

ISO 15214 1998-08	Microbiology of foods and feeding stuffs - Horizontal method for the enumeration of mesophilic lactic acid bacteria - Colony-count technique at 30°C
ASU L 06.00-35 2017-10	Testing of foods - Determination of aerobic grown latic acid bacteria in meat and meat products - Spatula method (Reference method) (adoption of the homonymous standard DIN 10109, Edition May 2016)

1.2.12 Pseudomonas

ASU L 06.00-43 2011-06	Testing of foods - Enumeration of Pseudomonas spp. in meat and meat products (adoption of the homonymous standard DIN EN ISO 13720, Edition December 2010)

2 Molecular biological analysis of foods

2.1 Qualitative detection of specific microorganisms by Real-time PCR in foods**

2.1.1 Salmonellae

ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method
QIAGEN mericon™ Salmonella spp. Cat. No. 290013/290015 2011-02	Qualitative detection of salmonella in foods - real time PCR-method

2.1.2 E. coli

PV 170 GramNegPCR 2015-02	Detection of gram-negative bacteria using real-time PCR (*here for E. coli only*)

2.1.3 Listeriae

ASU L 00.00-95(V) 2006-12	Testing of foods - Qualitative detection of Listeria monocytogenes in foods - PCR method

3 Microbiological tests on surfaces of furnishings and consumer goods in the food sector

3.1 Determination of bacteria, yeasts and moulds by means of cultural microbiological tests on surfaces of furnishings and consumer goods in the food sector *

DIN EN ISO 6579-01 2017-07	Microbiology of the food chain - Horizontal method for the detection, enumeration and serotyping of Salmonella - Part 1: Detection of Salmonella spp. (modification: *here for dip-slide, wipe and swap samples*)
DIN 10113-2 1997-07	Determination of surface colony count on surfaces of furnishings and consumer goods in the food sector - Part 2: Semi-quantitative swab method
DIN 10113-3 1997-07	Determination of surface colony count on surfaces of furnishings and consumer goods in the food sector - Part 3: Semi-quantitative method with culture media laminated sampling equipment (Dip-slide method)
PV-293-LKZ 2015-09	Test method for the determination of the content microorganisms of surrounding area hygiene samples (air)

3.2 Determination of bacteria using real-time PCR

ASU L 00.00-95(V) 2006-12	Testing of foods - Qualitative detection of Listeria monocytogenes in foods - PCR method (modification: *here for dip-slide, wipe and swap samples*; *detection by Real- Time PCR)*
ASU L 00.00-98 2007-04	Testing of foods - Qualitative detection of salmonella in foods - real time PCR-method (modification: *here for dip-slide, wipe and swap samples*)

4 Test methods according the German drinking water directive - TrinkwV

Sampling

Method	Title
DIN EN ISO 5667-1 (A 4) 2007-04	Guidance on the design of sampling programmes and sampling techniques
DIN ISO 5667-5 (A 14) 2011-02	Guidance on sampling of drinking water from treatment works and piped distribution systems
DIN EN ISO 5667-3 (A 21) 2013-03	Water quality - Sampling - Part 3: Preservation and handling of water samples

Method	Title
DIN EN ISO 19458 (K 19) 2006-12	Water quality - Sampling for microbiological analysis
Recommendation of Umweltbundesamt 18. December 2018	Evaluation of drinking water quality in terms of the parameters lead, copper and nickel

ANNEX 1: MICROBIOLOGICAL PARAMETERS

PART I: General requirements for drinking water

No.	Parameter	Method
1	Escherichia coli (E. coli)	DIN EN ISO 9308-1 (K 12) 2017-09
2	Enterococci	DIN EN ISO 7899-2 (K 15) 2000-11

PART II: Requirements for drinking water, which is intended to be submitted in sealed containers

No.	Parameter	Method
1	Escherichia coli (E. coli)	DIN EN ISO 9308-1 (K 12) 2017-09
2	Enterococci	DIN EN ISO 7899-2 (K 15) 2000-11
3	Pseudomonas aeruginosa	DIN EN ISO 16266 (K 11) 2008-05

ANNEX 2: CHEMICAL PARAMETERS

PART I: Chemical parameters, of which the concentration usually not increases in the distribution network including the drinking water installation

not used

PART II: Chemical parameters, of which the concentration may increase in the distribution network including the drinking water installation

not used

ANNEX 3: INDICATOR PARAMETERS

PART I: General indicator parameters

No.	Parameter	Method
1	Aluminium	not used
2	Ammonium	not used
3	Chloride	not used
4	Clostridium perfringens (incl. spores)	DIN EN ISO 14189 (K 24) 2016-11
5	Coliform bacteria	DIN EN ISO 9308-1 (K 12) 2017-09
6	Iron	not used
7	Colour (spectral absorption coefficient Hg 436 nm)	not used

No.	Parameter	Method
8	Odour	DIN EN 1622 (B 3) 2006-10 (Annex C)
9	Taste	DEV B 1/2 part a 1971
10	Colony count at 22 °C	DIN EN ISO 6222 (K 5) 1999-07 TrinkwV §15 par. (1c)
11	Colony count at 36 °C	DIN EN ISO 6222 (K 5) 1999-07 TrinkwV §15 par (1c)
12	Electrical conductivity	DIN EN 27888 (C8) 1993-11
13	Manganese	not used
14	Sodium	not used
15	Total organic carbon (TOC)	not used
16	Oxidisability	not used
17	Sulphate	not used
18	Turbidity	not used
19	Concentration of hydrogen ions	DIN EN ISO 10523 (C5) 2012-04
20	Capacity for solubility of calcite	not used

PART II: Special requirements for drinking water in systems of the drinking water installation

Parameter	Method
Legionella spec.	ISO 11731 2017-05 UBA recommendation 18. December 2018

ANNEX 3a: Requirements for drinking water in relation to radioactive substances
not used

Parameters, which are not mentioned in annex 1 to 3 of the German drinking water directive
Further periodical analysis
not used

The accreditation does not replace the recognition or approval of the competent authority according to § 15 par. 4 TrinkwV.

Abbreviations used:

ASU	Amtliche Sammlung von Untersuchungsverfahren nach § 64 LFGB (Official collection of analytical methods according to § 64 LFGB)
AOAC	Association of Official Agricultural Chemists
BTEX	Benzol, Toluol, Ethylbenzol, Xylol
CEN	European Committee for Standardization
DAD	Diode Array Detector
DGF	Deutsche Einheitsmethoden zur Untersuchung von Fetten, Fettprodukten, Tensiden und verwandten Stoffen der Deutschen Gesellschaft für Fettforschung (German standard methods for the investigation of fats, fat products, surfactants and related substances of the German Society for Fat Research)
DIN	Deutsches Institut für Normung e. V. (German Institut for Standardisation e. V.)
DVGW	Deutscher Verein des Gas- und Wasserfaches (German Association for Gas and Water)
EN	Europäische Norm (European standard)
FID	Flame ionisation detector
HPAE-PAD	High performance anion exchange chromatography with pulsed amperometric Detector
HPLC	High performance liquid chromatography
IEC	International Electrotechnical Commission
IFPxxxxxx	Inhouse- method ifp GmbH
ISO	International Organization for Standardization
LFGB	Lebensmittel-, Bedarfsgegenstände- und Futtermittel-Gesetzbuch (German Food, Commodities and Feed Code)
MB	Methodenbuch (Book of methods)
MS	Mass spectrometry
PCR	Polymerase- Chain-Reaction
Ph. Eur.	European Pharmacopoeia
PV	In-house method Ifp GmbH
SLMB	Schweizer Lebensmittelbuch (Swiss food book)
TS	Technical Specification
VDLUFA	Verband Deutscher Landwirtschaftlicher Untersuchungs- und Forschungsanstalten e.V. (Association of German Agricultural Testing and Research Institutes e. V.)