

DAP Deutsches Akkreditierungssystem Prüfwesen

Annex to the Accreditation Certificate DAP-PL-2566.99 according to DIN EN ISO/IEC 17025:2005

Period of validity: 2006-09-05 to 2009-04-30

Holder of the certificate:

**SGS Societ  Gen rale de
Surveillance Holding (Deutschland) GmbH
SGS Gruppe Deutschland**

Im Maisel 14
65232 Taunusstein

for its locations

SGS INSTITUT FRESENIUS GmbH
Im Maisel 14
65232 Taunusstein

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Keuperstra e 4
95448 Bayreuth

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SGS INSTITUT FRESENIUS GmbH
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SGS INSTITUT FRESENIUS GmbH
Zur Wetterwarte 10
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Joseph-von-Fraunhofer-Stra e 13
44227 Dortmund

SGS INSTITUT FRESENIUS GmbH
An der M lbiser Landstra e 1
04579 Espenhain

SGS INSTITUT FRESENIUS GmbH
Am Leinekanal 4
37073 G ttingen

SGS INSTITUT FRESENIUS GmbH
Am Technologiepark 10
45699 Herten

SGS INSTITUT FRESENIUS GmbH
Maistra e 54
80337 M nchen

SGS INSTITUT FRESENIUS GmbH
Am T V 1
66280 Sulzbach

SGS INSTITUT FRESENIUS GmbH
Pestalozzistra e
78333 Stockach

ZfD Zentrum f r Dioxinanalytik GmbH
Bernecker Stra e 19
95448 Bayreuth

Tests in the areas: physical, physico-chemical, chemical, biochemical, organoleptic, biological, immunchemical, microscopic, microbiological, molecularbiological, ecotoxicological and trace element analyses of water, drinkingwater according to drinking water regulation 2001, mineral water, medicinal water, ground water, surface water, sea water, atmospheric water, waste water, seep water of disposal site, water of swimming pools and bath and technical water, soils, contaminated soils, sludge, sewage sludge, sediments, waste, compost, dust, building materials and recycled building materials, ash, slag, materials for recycling, solid fuels, surfaces, thin layers, gas, inorganic and organic gaseous and particulate air constituents of emissions, immissions, airborne pollutants with in the frame indoor measurements, food, feeding stuff, fertilisers and packaging means; determination (sampling and analyses) of inorganic and organic gaseous and particulate air constituents at the working place according to hazardous material regulation, determination of air constituents of emissions, soil air, gas from waste deposits, food, fattening additives, identification of BSE/TSE (BIO-RAD rapid test) as well as selected tests of chemicals, pesticides, mineral oils, metals, commodities, vehicle interior assessiores, pharmaceuticals, cosmetika, medical products, parenteralia, toys, packing materials, textiles, wood, bitumen, leather, fibrous particles and materials with REM and TEM, biological materials as well as human and animal fluids and excretions analyses with regard to polyhalogenated dibenzo-p-dioxines and dibenzofuranes; physical and chemical test for extensive characterization of complex materials, media, matter and products, as i. e. solids, dispersions, gels, pastes, fluids with different viscosity, metallic matter, glasses, ceramics, sandwich materials and multiple coating-systems; physical and chemical test of surfaces of all sorts and in the volume of the samples as well as tests of individual thin layers, particles and fibres of sandwich materials; XRD-analyses of inorganic and organic compounds; sampling of water, drinking water, mineral water, healing water, groundwater, surface water, sea water, running waters, atmospheric water, waste water, seep water of disposal site, water of swimming pools and baths and technical water, soil, contaminated soils, sludge, sewage sludge, sediments, compost waste, debris, dust and building materials, air, airborne polyhalogenated dibenzo-p-Dioxines and furances, vapours and aerosols at the workplace, soil air, indoor atmosphere, plant materials, food as well as samples from the surroundings for hygienic assessment

abbreviations used: see page 93

Not all listed test methods are conducted at every location. The quality management system of SGS INSTITUT FRESENIUS GmbH assures that tests are conducted only in locations, where the competence was assessed. The locations, where the test methods are conducted are indicated in the annex to this certificate.

Bayreuth	BAY	Göttingen	GÖ
Berlin, Goerzallee	B1	Herten	HE
Berlin, Tegeler Weg	B2	München	M
Dortmund	DO	Sulzbach	SB
Dresden	DD	Stockach	SW
Espenhain	ESP	Taunusstein	TST
		ZfD Bayreuth	ZfD

Parts of the accreditation proceeding DAP-PL-2566.01 and DAP-PL-2566.06 at the sites Taunusstein and Herten are subject to a flexible accreditation.

Standard / Rules: Status August 2006

The modification as well as further and new developments of the test methods is allowed to the laboratory within the ** marked testing fields without information and acceptance of the DAP Deutsches Akkreditierungssystem Prüfwesen GmbH. The listed test methods are exemplary.

The test methods listed, which are marked by (A) correspond to § 2 of the Agreement between the Revenue Department of Hannover and the accreditation bodies DAP, DACH and DASMIN on the accreditation of testing laboratories and engineering offices under the exploration of contaminated sites or sites suspected of contamination on federal real estate of 22 May 2000. For the areas of chemical analytics and sampling of water, soil and air soil, the competence is confirmed for the full scope of required parameters.

1 Sampling of water, waste water, sludge, eluates, sediments, waste and recycling materials

1.1 Sampling

AbfKlärV, Anhang 1 1992-06 B1, SW, TST (MA)	Sampling of sewage sludge and agricultural soils
DIN 38402-A 11 1995-12 BAY, B1, ESP, GÖ, HE, SB, SW (A), (MW), (I)	Sampling of waste water
DIN 38402-A 12 1985-06 BAY, B1, ESP, HE, SB, SW (A), (MW), (MB)	Sampling from barrages and lakes
DIN 38402-A 13 1985-12 B1, ESP, HE, S, B, SW (A), (MW), (MB)	Sampling from aquifers
DIN 38402-A 14 1986-03 BAY, B1, ESP, GÖ, SB (MW)	Sampling of untreated water and drinking water
DIN 38402-A 15 1986-11 B1, ESP, HE, S, SB, SW (A), (MW), (MB)	Sampling of flowing waters
DIN 38402-A 18 1991-05 SW, TST	Sampling of water from mineral springs and spas
DIN 38402-A 19 1988-04 BAY, B1, GÖ, SB, SW, TST	Sampling of swimming pool and bathing pool water

DIN 38402-A 22 1991-06 B1, TST	Sampling of cooling water for industrial use
DIN 38402-A 30 1998-07 BAY, B1, ESP, GÖ, HE, SB, SW, TST (A), (MW), (I)	Pre-treatment, homogenization and aliquotation of non-homogeneous water samples
DIN 38411-K 1 1983-02 BAY, SB	Preparation for microbiological examination of water samples
DIN 38414-S 11 1987-08 B1, ESP, HE, SW	Sampling of sediments
DIN EN 25667-1 (A 4) (ISO 5667-1:1980 with ISO 5667-1:1996-02 Technical Corrigendum) 1993-11 B1, ESP, GÖ, HE, TST (A)	Water quality; sampling; Part 1: Guidance on the design of sampling programmes
DIN EN 25667-2 (A 3) 1993-07 ESP, B1, BAY, GÖ, HE (A)	Water quality; sampling; Part 2: Guidance on sampling techniques
DIN EN 932-1 1996-11 SW	Test for general properties of aggregates - Part 1: Methods for sampling
DIN EN ISO 15587-1 (A 31) 2002-07 B1, HE, SW, TST	Water quality - Digestion for the determination of selected elements in water - Part 1: Aqua regia digestion
DIN EN ISO 15587-2 (A 32) 2002-07 B1, HE, TST, SW	Water quality - Digestion for the determination of elements in water Part 2: Nitric acid digestion
DIN EN ISO 5667-13 (S 1) 1998-02 B1, ESP, HE, SW	Water quality; Sampling; Part 13: Guidance on sampling of sludges from sewage and water treatment works
DIN EN ISO 5667-3 (A 21) 2004-05 BAY, B1, ESP, GÖ, HE, SB, SW, TST (A), (B)	Water quality; Sampling; Part 3: Guidance on the preservation and handling of samples
DVWK 128 1992-01 B1, HE, SB, TST (A), (MB)	Sampling and scope of analysis of ground water samples

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DVWK 245 1997-01 B1, ESP, HE, SB, SW, TST (A), (MB)	Depth oriented sampling of ground water wells
DVWK W 111 1997-03 B1, ESP, HE, SB, SW, TST (A)	Planning, execution and evaluations of pumping trials at the water exploitation
DVWK W 115 SW 1977-02	Drilling in searching for water
DVWK W 121 1988-10 B1, SW (A)	Construction and operation of ground water quality measurement stations
Hausverfahren SOP M 450 2004-08 HE (MB)	Sampling of seepage water
ISO 5667-1 1996-02 BAY, SB, SW, (A)	Water quality; Sampling; Part 1: Guidance on the design of sampling programmes
ISO 5667-11 1993-03 B1, ESP, HE, SB, SW, (A)	Water quality; Sampling; Part 11: Guidance on sampling of groundwaters
LAGA 1997-11 SW	Mineralische Reststoffe Requirements for reutilization of the material in mineral residues / old waste dumps, technical rules
LAGA PN 98 2002-01 B1, HE, SW, TST	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes
LAGA PN 98 2002-01 TST (MA)	Guideline for handling physical and chemical investigations related to reutilization / elimination of old waste dumps
LAGA Richtlinie PN 1/75 1984-01 B1, HE, TST	Sampling of water samples
LAWA, AQS-Merkblatt P-8/1 1993-01 BAY, SB (A)	Sampling of waste water

LAWA, AQS-Merkblatt P-8/2 Sampling of groundwaters
1995-05
B1, ESP, HE, SB, SW, TST
(A), (MB)

LAWA, AQS-Merkblatt P-8/3 Sampling flowing water
1998-05
SB

1.1.1 Additional valid documents

Bayerisches Landesamt für Testing of debris
Umweltschutz
1998-01
SW

1.2 Pre-treatment

DIN EN 12457-1 Characterization of waste; Leaching; Compliance test for leaching
2003-01 of granular waste materials and sludges - Part 1: One stage batch
B1 test at a liquid to solid ratio of 2 l/kg with particle size below 4 mm
 (without or with size reduction)

DIN EN 12457-3 Characterization of waste; Leaching; Compliance test for leaching
2003-01 of granular waste materials and sludges - Part 3: Two stage batch
B1 test at a liquid to solid ratio of 2 l/kg and 8 l/kg for materials with
 high solid content with particle size below 4 mm (without or with
 size reduction)

DIN EN 13656 Characterization of wastes. Disintegration with a microwave unit
2003-01 using a mixture of hydrofluoric acid (HF), nitric acid (HNO₃) and
B1 hydrochloric acid for subsequent determination of the elements in
 the waste

DIN EN 13657 Characterization of wastes. Disintegration for subsequent
2003-01 determination of the aqua regia-soluble elements in the waste
B1

1.3 Physical and physical-chemical characteristics quantities

DEV B 1/2 Examination of taste and odour
1971-01
BAY, B1, ESP, GÖ, HE, SB,
SW, TST
(MW)

DEV C 9 Determination of density
1971-01
TST

DIN 38404-C 10 Calcite saturation of water
1995-04
SW

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DIN 38404-C 3 2005-07 ESP, HE, TST (MW)	Determination of absorption in the range of the ultraviolet radiation; Spectral absorption coefficient
DIN 38404-C 4 1976-12 BAY, GÖ, HE, SB, SW, TST (A), (MW), (MB)	Determination of temperature
DIN 38404-C 4-1 1976-12 B1, ESP (D), (MW), (MB)	Temperature measurement with a mercury thermometer
DIN 38404-C 5 1984-01 BAY, B1, ESP, GÖ, HE, SB, SW, TST (A), (D), (MW), (MB)	Determination of pH value
DIN 38404-C 6 1984-05 BAY, B1, ESP, GÖ, HE, SB, SW, TST (MW)	Determination of the oxidation reduction (redox) potential
DIN 38408-G 23 1987-11 BAY (A)	Determination of Sauerstoffsättigungsindex
DIN EN 1622 (B 3) 1998-01 BAY, SB, SW, TST	Water quality - Determination of the threshold odour number (TON) and threshold flavour number (TFN)
DIN EN 27888 (C 8) 1993-11 BAY, B1, ESP, GÖ, HE, SB, SW, TST (A), (D), (MW), (MB)	Water quality; Determination of electrical conductivity
DIN EN ISO 7027 (C 2) 2000-04 BAY, B1, ESP, GÖ, HE, SB, SW, TST (A), (MW)	Water quality; Determination of turbidity
DIN EN ISO 7887 (C 1) 1994-12 BAY, B1, ESP, GÖ, HE, SB, SW, TST (A), (MW), (I)	Water quality; Examination and determination of colour
Hausverfahren SOP M 441 GÖ, SW, TST 1999-03	Determination of free and bounded chlorine with photometric apparatus Allcon Test S

1.4 Nonmetal, Anions

DEV D 8 1985-01 B1, HE	Calculation of free carbon acid, carbonate and hydrocarbonate
DIN 38405-D 14 1988-12 B1 (A), (MW)	Determination of cyanides in drinking water, and in groundwater and surface water with low pollution levels
DIN 38405-D 23 1994-10 TST	Determination of selenium by atomic absorption spectrometry
DIN 38405-D 23 1994-10 B1, HE, TST (A), (B), (I), (MB)	Determination of selenium by atomic absorption spectrometry
DIN 38405-D 24 1987-05 B1, HE, SW, TST (A), (B), (MW), (MB), (I)	Photometric determination of chromium (VI) using 1,5-diphenylcarbonohydrazide
DIN 38405-D 24 1987-05 TST	Photometric determination of chromium (VI) using 1,5-diphenylcarbonohydrazide
DIN 38405-D 32 2000-05 B1, HE, TST (A), (I)	Determination of antimony by atomic absorptions spectrometry
DIN 38405-D 35 2001-04 HE (A)	Determination of arsenic by atomic absorption spectrometry after electrothermal atomisation
V DIN 38405-D 40 2003 TST	Photometrical determination of chromium (VI) in drinking water with 1,5-diphenylcarbазid
DIN 38405-D 5 1985-01 SW, TST (B)	Determination of sulfate ions
DIN 38405-D 9 1979-05 SW	Determination of nitrate ion
DIN 4030-2 1991-06 HE	Assessment of water, soil and gases for their aggressiveness to concrete; Collection and examination of water and soil samples
DIN 4030-2 1991-06 TST	Assessment of water, soil and gases for their aggressiveness to concrete; Collection and examination of water and soil samples

DIN EN 1483 (E 12) 2004-12 TST, HE (B)	Water quality; Determination of mercury
DIN EN ISO 11969 (D 18) 1996-11 B1, HE, SW, TST (A), (B), (I), (MW)	Water quality; Determination of arsenic; Atomic absorption spectrometric method (hydride technique)
DIN EN ISO 11969 (D 18) 1996-11 TST (B)	Water quality; Determination of arsenic; Atomic absorption spectrometric method (hydride technique)
DIN EN ISO 14403 (D 6) 2002-07 HE, TST (MB)	Water quality; Determination of total cyanide and free cyanide by continuous flow analysis

1.4.1 Determination of anions by Ion chromatography

DIN EN ISO 10304-1 (D 19) 1995-04 B1, HE, TST (A), (B), (D), (MW), (MB)	Water quality; Determination of dissolved fluoride, chloride, nitrite, orthophosphate, bromide, nitrate and sulfate ions, using liquid chromatography of ions; Part 1: Method for water with low contamination
DIN EN ISO 10304-2 (D 20) 1996-11 B1, HE, TST (A), (MW), (I)	Water quality; Determination of dissolved anions by liquid chromatography of ions; Part 2: Determination of bromide, chloride, nitrate, nitrite, orthophosphate and sulfate in waste water
DIN EN ISO 10304-3 1997-11 TST (MW)	Water quality - Determination of dissolved anions by liquid chromatography of ions - Part 3: Determination of chromate, iodide, sulfite, thiocyanate and thiosulfate
DIN EN ISO 15061 2001-12 TST, HE	Determination of dissolved bromate - Method by liquid chromatography of ions

1.4.2 Determination of anions by photometry

DIN 38405-D 13 1981-02 B1, HE, TST (A), (B), (MW), (MB), (I)	Determination of Cyanides
DIN 38405-D 21 1990-10 TST	Determination of dissolved silicate by spectrometry
DIN 38405-D 26 1989-04 B1, HE, TST (A), (MW)	Determination of dissolved sulfide by spectrometry

DIN 38405-D 27 1992-07 B1, TST, HE (A), (MW), (I)	Determination of readily liberate sulfide
DIN 38405-D 33 2001-02 TST	Determination of iodide by spectrometry
DIN EN 1189 (D 11) 1996-12 B1, HE, SW, TST (A), (D), (MW), (I)	Water quality - Determination of phosphorus - Ammonium molybdat spectrometric method
DIN EN 26777 (D 10) 1993-04 B1, SW (A), (D), (I), (MW)	Water quality; determination of nitrite; molecular absorption spectrometric method
DIN EN ISO 13395 (D 28) 1996-12 TST	Water quality - Determination of nitrite nitrogen and nitrate nitrogen and the sum of both by flow analysis (CFA and FIA) and spectrometric
DIN EN ISO 14403 (D 6) 2002-07 HE, TST (MB)	Water quality; Determination of total cyanide and free cyanide by continuous flow analysis
DIN EN ISO 6878 2004-09 HE	Water quality - Determination of phosphorus - Ammonium molybdate spectrometric method

1.4.3 Determination of anions by electrochemistry

DIN 38405-D 1 1985-12 B1, SW, TST	Determination of chloride ions
DIN 38405-D 4 1985-07 B1, HE, TST (A), (B), (MW), (MB), (I)	Determination of fluoride

1.5 Cations

DIN 38406-E 1 1983-05 HE (MW)	Determination of iron
DIN 38406-E 1-1 1983-05 B1 (MW)	Photometric determination of iron with 1,10-phenanthroline

DIN EN 1233 (E 10)
1996-08
B1, TST
(A), (B), (D), (I), (MW), (MB),
(MA)

Water quality - Determination of chromium - Atomic absorption spectrometric methods

DIN EN 1483 (E 12)
1997-08
B1, HE, SW, TST
(A), (B), (D), (MA), (MW),
(MB), (I)

Water quality; Determination of mercury

DIN EN ISO 5961 (E 19)
1995-05
B1, HE, TST
(A), (D), (I), (MW), (MB), (MA)

Water quality; Determination of cadmium by atomic absorption spectrometry

1.5.2 Determination of elements by ICP

DIN EN ISO 11885 (E 22)
1998-04
B1, HE, SW, TST
(A), (B), (D), (I), (MA), (MB),
(MW)

Water quality; Determination of 33 elements by inductively coupled plasma atomic emission spectroscopy

DIN EN ISO 17294-2
2004-04
TST, HE

Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 2: Determination of 62 elements

1.5.3 Determination of elements by Photometry

DIN 38406-E 5
1983-10
B1, SW, TST
(A), (D), (I), (MA), (MW), (MB)

Determination of ammonia-nitrogen

DIN 38406-E 5-1
1983-10
HE
(A)

Determination of ammonia-nitrogen by photometric analyses and potassium dichloroisocyanurate and potassium salicylate

DIN 38406-E 5-2
1983-10
HE
(A), (MW), (MB)

Determination of ammonia-nitrogen by photometric analyses and distillation

DIN EN ISO 11732
2004-09
TST
(MW)

Water quality - Determination of ammonium nitrogen - Method by flow analysis (CFA and FIA) and spectrometric detection

1.6 Jointly determinable substances

DFG Methode 405
1996-01
TST

Determination of glyphosate and ampa in water, soils and plants

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DIN 38407-F 13 2001-03 TST	Determination of selected Determination of selected organotin compounds by gas chromatography
DIN 38407-F 14 1994-10 DD (A)	Determination of phenoxyalkyl carbonic acids by gas chromatography and mass-spectrometric detection after solid-liquid-extraction and derivatization
DIN 38407-F 16 1997- 05 B1 (I)	Determination of aniline derivates by gas chromatography
DIN 38407-F 17 1999-02 DD	Determination of selected nitroaromatic compounds by gas-liquid chromatography
DIN 38407-F 2 1993-02 B1, HE, TST (A), (B), (MW), (MB), (I)	Determination of low volatile halogenated hydrocarbons by gas chromatography
DIN 38407-F 3 1998-07 B1, TST (A), (B), (MB)	Determination of polychlorinated biphenyls
DIN 38407-F 8 1995-10 B1, TST (A), (D), (I), (MW)	Determination of 6 polynuclear aromatic hydrocarbons (PAH) in water by high performance liquid chromatography (HPLC) with fluorescence
DIN 38407-F 9 1991-05 B1, DD, TST (A), (B), (I), (MW), (MB)	Determination of benzene and some derivations by gas chromatography
DIN 38407-F 9-1 1991-05 HE (A), (B), (MW), (MB), (I)	Determination of benzene and some derivations by gas chromatography by head space analysis (Deviation: <i>detection with GC/MS</i>)
DIN 38407-F 9-2 1991-05 HE (A), (B), (MW), (MB)	Determination of benzene and some derivatives by gas chromatography and extraction
DIN EN 12673 (F 15) 1999-05 HE	Water quality; Gas chromatographic determination of some selected chlorophenols in water
DIN EN 12918 1999-11 TST (A)	Water quality - Determination of parathion, parathion-methyl and some other organophosphorus compounds in water by dichloromethane extraction and gas chromatographic analysis
DIN EN ISO 10301 (F 4) 1997-08 B1, DD, TST (A), (B), (MW), (MB), (I)	Water quality; Determination of highly volatile halogenated hydrocarbons, Gas-chromatographic methods

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<p>DIN EN ISO 10301 (F 4) 1997-08 HE (A), (B), (I), (MW), (MB)</p>	<p>Water quality; Determination of highly volatile halogenated hydrocarbons, Gas-chromatographic methods</p>
<p>DIN EN ISO 10695 2000-11 TST (A)</p>	<p>Water quality - Determination of selected organic nitrogen and phosphorus compounds - Gas chromatographic methods</p>
<p>DIN EN ISO 11369 (F 12) 1997-11 TST (MW)</p>	<p>Water quality - Determination of selected plant treatment agents - Method using high performance liquid chromatography with UV detection after solid-liquid extraction</p>
<p>DIN EN ISO 15680 2004-04 TST</p>	<p>Gas-chromatographic determination of a number of monocyclic aromatic hydrocarbons, naphthalene and several chlorinated compounds using purge-and-trap and thermal desorption</p>
<p>DIN EN ISO 15913 (F 20) 2003-05 TST</p>	<p>Determination of selected phenoxyalkanoic herbicides, including bentazones and hydroxybenzotrioles by gas chromatography and mass spectrometry after solid phase extraction and derivatization</p>
<p>DIN EN ISO 17993 (F 18) 2004-03 TST (MW)</p>	<p>Water quality - Determination of 15 polycyclic aromatic hydrocarbons (PAH) in water by HPLC with fluorescence detection after liquid-liquid</p>
<p>DIN EN ISO 17993 (F 18) 2004-03 B1, HE (A), (MW), (MB), (I)</p>	<p>Water quality - Determination of 15 polycyclic aromatic hydrocarbons (PAH) in water by HPLC with fluorescence detection after liquid-liquid</p>
<p>DIN EN ISO 6468 (F 1) 1997-02 B1, HE, TST (A), (B), (I), (MW)</p>	<p>Water quality; Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes; Gaschromatographic method after liquid-liquid extraction</p>
<p>DIN EN ISO 9377-2 2001-07 B1, HE, TST (MW)</p>	<p>Water quality; Determination of hydrocarbon oil index; Part 2: Method using solvent extraction and gas chromatography</p>
<p>DIN EN ISO 23631 2006-05 TST</p>	<p>Water quality - Determination of dalapon, trichloroacetic acid and selected haloacetic acids - Method using gas chromatography (GC-ECD and/or GC-MS detection) after liquid-liquid extraction and derivatization</p>
<p>E DIN ISO 20179 2006-08 TST</p>	<p>Water quality - Determination of microcystins - Method using solid phase extraction (SPE) and high performance liquid chromatography (HPLC)</p>
<p>EPA 610 1984-10 B1 (D)</p>	<p>Determination of polynuclear aromatic hydrocarbons (PAH)</p>

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EPA 8260B 1996-12 TST	Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry (GC/MS): Capillary Technique
EPA 8270C 1996-12 TST	Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry (GC/MS): Capillary Column Technique
Hausverfahren SOP M 121 1999-02 DD (A)	Identification of organic compounds in water samples by GC-MS-Screening
Hausverfahren SOP M 123 1998-03 B1, TST (A)	GC-MS-Screening; qualitative and semi-quantitative oriented analysis
Hausverfahren SOP M 371 1999-03 TST	Determination of plasticizers in water by GC/MS
Hausverfahren SOP M 373 1999-03 TST	Determination of antioxidants in water after derivatisation by GC/MS
Hausverfahren SOP M 405 2003-12 TST	Determination of volatile organic carbons (VOC) in drinking and mineral water by purge and trap-GC/MS
Hausverfahren SOP M 593 2005-10 DD	Determination of nitro aromatics and explosive typical compounds in water by HPLC-DAD and GC/ECD
Hausverfahren SOP M 596 2005-10 DD	Determination of nitro aromatics and explosive typical compounds in soils by HPLC-DAD and GC/ECD
Hausverfahren SOP M 789 2005 -05 TST	Determination of Amitrol in water
Hausverfahren SOP M 823 2005-06 TST	Determination of fosetyl-Al and bentazon in water
Hausverfahren SOP M 885 2005-12 TST	Determination of dithio carbamates after pyrolysis to carbon disulfide by Purge & Trap /GC/MS

Hausverfahren SOP M 886 2005-12 TST	Determination of pesticides in water by GC-MS with large volume injection
Hausverfahren SOP M 887 2005-12 TST	Multi method to the determination of pesticides in water samples by LC-MS/MS
Inhouse method SOP M 1031 2006-08 TST	Determination of Paraquat by SPE / LC-MSMS
ISO 8165-2 1999-07 HE (A), (MB)	Water quality; Determination of selected monovalent phenols; Part 2: Method by derivatization and gas chromatography (Deviation: <i>set to pH 9, Extraction with n-Hexan, Derivatisation with pentafluorobenzoylchloride, Detection by GC-ECD</i>)
VDI 3862 Blatt 2 2000-12 HE	Gaseous emission measurement - Measurement of aliphatic and aromatic aldehydes and ketones by DNPH method - Impinger method

1.7 Jointly determinable substances

DIN 38408-G 23 1987-11 B1, SB (A), (D)	Determination of oxygen saturation index
DIN 38408-G 5 1990-06 B1, SW (I)	Determination of chloro dioxide
DIN EN 25813 (G 21) 1993-01 B1 (D)	Water quality; determination of dissolved oxygen; Iodometric
DIN EN 25814 (G 22) 1992-11 BAY, B1, GÖ, SB, SW, TST (A), (D), (MW)	Water quality; Determination of dissolved oxygen by the electrochemical probe method
DIN EN 25814 (G 22) HE, TST 1992-11 (A), (MW)	Water quality; Determination of dissolved oxygen by the electrochemical probe method
DIN EN ISO 7393-2 (G 4) B1, HE, TST 2000-04 (D), (I)	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

1.8 Parameters characterizing effects and substances

DEV H 21 1971-01 TST	Determination
DEV H 22 B1 (D)	Test for ability to rot
DEV H 25 1989-01 B1, TST, HE (I)	Determination of purgable organic bounded halogens (POX)
DEV V H 56 2000-01 B1, HE, SB	Determination of highly volatile and lipophile substances; Method after solvent extraction and gravimetric determination
DIN 38409-H 1 1987-01 B1, HE, ESP (A)	Determination of total dry residue, filtrate dry residue and residue on ignition
DIN 38409-H 10 B1, HE, TST 1980-07	Determination of the settleable matter by mass concentration in water and waste water
DIN 38409-H 15 1987-06 B1 (I)	Determination of hydrogen peroxide and its adducts
DIN 38409-H 16 1984-06 B1, HE, TST (A), (MW), (I)	Determination of the phenol index
DIN 38409-H 17 1981-05 TST (D), (I), (MW)	Determination of non volatile and lipophilic substances (boiling points > 250 °C)
DIN 38409-H 18 1981-02 B1, HE (D), (I)	Determination of hydrocarbons (withdrawn guideline)
DIN 38409-H 19 1986-02 B1, HE (I)	Determination of directly separable lipophilic substances (withdrawn guideline)
DIN 38409-H 2 1987-03 B1, HE, TST (A), (D), (I), (MW)	Determination of filterable matter and the residue on ignition

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DIN 38409-H 20 1989-07 B1 (I)	Determination of Disulphan Blue [Disulfine Blue]-active substances
DIN 38409-H 22 2001-02 HE, TST	Determination of dissolved adsorbable and organically bound halogens in salt loaded water (SPE-AOX)
DIN 38409-H 23 1980-05 B1, TST (I)	Determination of methylen blue active and bismut active substances
DIN 38409-H 25 1989-01 TST	Determination of purgable organically bound halogens (POX)
DIN 38409-H 26 1989-05 B1 (I)	Determination of the bismuth complexing index / BIK
DIN 38409-H 27 1992-07 B1, HE (I)	Determination of total bound nitrogen TN(Index)b
DIN 38409-H 41 1980-12 B1, HE (A), (D), (I), (MW)	Determination of the Chemical Oxygen Demand (COD) in the Range over 15 mg/l
DIN 38409-H 43 1981-12 B1 (D)	Determination of the chemical oxygen demand (COD); quick method
DIN 38409-H 44 1992-05 B1, SW (D)	Determination of the chemical oxygen demand (COD), ranging from 5 to 50 mg/l
DIN 38409-H 6 1986-01 B1, HE	Water hardness
DIN 38409-H 7 2004-03 B1, HE (MW)	Determination of acid and base capacity
DIN 38409-H 8 1984 -09 B1, TST, HE (A)	Determination of extractable organically bound halogens (EOX)

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DIN 38409-H 9 1980-07 TST	Determination of the settleable matter by volume in water and waste water
DIN 38409-H 9-2 1980-07 B1, HE, SB (D), (I)	Determination of the settleable matter by volume in water and waste water in 2 l
DIN 38412-L 16 1985-12 TST	Test methods using water organisms; determination of chlorophyll in a surface water
DIN EN 12260 2003-12 HE	Water quality; Determination of nitrogen; Determination of bound nitrogen (TN _b), following oxidation to nitrogen oxides
DIN EN 1484 (H 3) 1997-08 B1, HE, TST (A), (MW), (MB), (I)	Water analysis; Guidelines for the determination of total organic Carbon (TOC) and dissolved organic carbon (DOC)
DIN EN 1485 (H 14) 1996-11 B1, SW, HE (A), (D), (MW), (I)	Water quality; Determination of adsorbable organically bound halogens (AOX)
DIN EN 1899-1 (H 51) 1998-05 B1, HE, SW (D), (I), (MW)	Water quality; Determination of biochemical oxygen demand after <i>n</i> days (BOD(Index) <i>n</i>); Part 1: Dilution and seeding method with allylthiourea acid addition
DIN EN 25663 (H 11) 1993-11 B1, HE, SW (A), (I)	Water quality; Determination of Kjeldahl nitrogen; method after mineralization with selenium
DIN EN 872 (H 33) 2003-08 B1, TST (I), (MW)	Determination of suspended solids - Method by filtration through glass fibre filters
DIN EN 903 (H 23) 1994-01 B1, TST (I)	Water quality; determination of anionic surfactants by measurement of the methylene blue index MBAS
DIN EN ISO 14402 1999-12 TST, HE	Determination of phenol index by flow analysis (FIA and CFA)
DIN EN ISO 8467 (H 5) 1995-05 B1, HE, TST	Water quality; Determination of permanganate index
DIN EN ISO 9377-2 (H 53) 2001-07 B1, HE (A), (MW), (I)	Water quality; Determination of hydrocarbon oil index; Part 2: Method using solvent extraction and gas chromatography

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DIN EN ISO 9509 1995-04 B1	Water quality - Toxicity test for assessing the inhibition of nitrification of activated sludge microorganisms
DIN EN ISO 9562 2005-02 HE	Water quality - Determination of adsorbable organically bound halogens (AOX)
ISO/CD 16265 2002-11 TST	Water quality - Determination of MBAS index (Methylene blue active substances index) - Method by flow analysis (CFA und FIA)
LAGA Merkblatt KW 85 1990-03 TST	Determination of hydrocarbons
LAWA Merkblatt P-5 1989-06 TST	Determination of AOX in water

1.9 Individual constituents

BGBI. Teil I Nr. 19 Nr. 503 1997-03 B1 (I)	Sulfide and mercaptan sulfur
DIN 38413-P 1 1982-03 B1 (I)	Determination of hydrazine
DIN 38413-P 2 1988-05 TST	Determination of vinyl chloride by headspace gas chromatography
DIN EN 14207 2003-09 TST	Determination of epichlorohydrin
DIN EN ISO 16588 TST 2004-02	Determination of six complexing agents
Hausverfahren SOP M 437 TST 1999-04	Determination of aromatic amines in water by GC/MS
Hausverfahren SOP M 441 2003-12 TST	Determination of acrylamid in drinking water and raw water by LC/MS/MS

1.10 Determination of sludge, sediments, waste and recycling materials

AbfKlärV 1992-04 SW	Sample pre-treatment, determination of heavy metals, plant nutrients, pH-value
AbfKlärV Anhang 1, 1.2 1992-01 HE, TST	Pre-treatment for samples
AbfKlärV Anhang 1, Punkt 1.3.1 1992 -04 SW, TST	Determination of heavy metals, nutrients, pH-value, solids residue, loss on ignition and adsorbable organically bound halogens (AOX)
AbfKlärV Anhang 1, Punkt 1.3.2 1992-04 SW, TST	Determination of basic substances, Foerster method
AbfKlärV Anhang 1, Punkt 1.3.3.1 1992-04 B1, HE, TST (A)	Determination of polychlorinated biphenyls
BioAbfV § 3 Absatz 4 1998-09 SW	Germinated seed and parts of plant able to sprout
BioAbfV, Anhang 1998-09 SW	Determination of the crude dry density
BioAbfV, Anhang 1998-09 SW	Determination of the soil type
BioAbfV, Anhang 2 1998-09 SW	Examination of salmonella
DIN 38406-E 5 1983-10 SW	Determination of ammonia-nitrogen (Deviation for sewage sludges: <i>Determination in aqua regia extract solution according to DIN ISO 11466, compensation of matrix interferences</i>)
DIN 38414-S 12 1986-11 B1, SW, TST	Determination of phosphorous in sludges and sediments
DIN 38414-S 17 2004-03 B1, HE	Determination of strippable and extractable organically bound
DIN 38414-S 18 1989-11 B1, TST, SW	Determination of adsorbed, organic bounded halogens organically bound halogens (AOX)

DIN 38414-S 20 1996-01 B1, HE, TST (B)	Determination of 6 polychlorinated biphenyls (PCB)
DIN 38414-S 22 1996-05 TST	Determination of freeze-dried residue and production of the freeze-dried weight of a sludge
DIN 38414-S 23 2002-02 HE (B)	Determination of 15 polycyclic aromatic hydrocarbons (PAH) by high-performance liquid chromatography (HPLC) with fluorescence
DIN 38414-S 23 2002-02 B1	Determination of 15 polycyclic aromatic hydrocarbons (PAH) by high performance liquid chromatography (HPLC) and fluorescence
DIN 38414-S 4 1984-10 B1, HE (A), (B), (MB)	Determination of leachability by water
DIN 38414-S 7 1983-01 SW	Sludge and sediments; digestion with aqua regia for subsequent determination of the acid soluble portion of metals
DIN 38414-S 9 1989-09 HE, TST	Determination of the chemical oxygen demand (COD)
DIN EN 12176 (S 5) 1998-06 B1, HE	Characterization of sludge; Determination of pH-value
DIN EN 12879 (S 3) 2001-02 B1, HE	Characterization of sludges; Determination of the loss on ignition of dry mass
DIN EN 12880 (S 2) 2001-02 B1, TST, HE (B)	Characterization of sludges; Determination of dry residue and water content
DIN EN 13137 1998-04 B1	Characterization of waste; determination of total organic carbon (TOC) in waste
DIN EN 13346 (S 7) 2001-04 B1, HE, SW, TST (MA)	Characterization of sludges; Determination of trace elements and phosphorus; Aqua regia extraction methods
DIN EN 1483 (E 12) 1997-08 SW	Water quality; Determination of mercury (Deviation for sewage sludges: <i>Determination in aqua regia - extract solution according to DIN ISO 11466, compensation of matrix interferences</i>)

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DIN EN 22719 1993-12 B1	Determination of the flash point. Pensky-Martens closed cup procedure
DIN EN ISO 11885 (E 22) 1998-04 SW	Water quality; Determination of 33 elements by inductively coupled plasma atomic emission spectroscopy
DIN EN ISO 12937 2002-03 B1	Determination of water content; coulometric Karl Fischer titration
DIN ISO 11261 1997-05 SW	Soil quality; Determination of total nitrogen, Modified Kjeldahl method
DIN ISO 1516 1987-06 B1	Determination of the hazard class from the flash point; closed-cup method
LAGA CN 1/75 1975-01 B1, HE	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes; Determination of cyanide in water
LAGA CN 2/79 1983-12 B1, HE, TST	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes; Determination of cyanide in waste
LAGA EW 1/77 1977-01 HE, TST	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes; Determination of leaching with water of solid waste and sludge
LAGA KW 2/85 1993-03 B1, HE	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes; Determination of hydrocarbons
LAGA PN 2/78 1983-12 HE	Sampling and Pre-treatment of samples of solid waste and liquid waste and sludge
LAGA SM 1/78 1978-01 HE	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes; Determination of heavy metals in water and leachates by atomic absorption spectrometry
LAGA SM 2/79 1983-12 HE, TST, B1	Guidance on the procedure of chemical, physical and biological measurements connected with the disposal of wastes; Determination of heavy metals in solid waste and sludge
Methodenbuch zur Analyse von Kompost Bundesgütegemeinschaft Kompost e. V. 1998-07 SW	Determination of water content
VDLUFA Methodenbuch Band 1 1991-01 B1	Determination of phosphorus and potassium in CAL extract

VDLUFA Methodenbuch
Band 1
1991-01
B1

Determination of the dry bulk density, pH-value and salinity

VDLUFA Methodenbuch
Band 1
1991-01
B1, HE

Determination of the dry density, pH and salt content

1.11 Selected rapid tests with

LCK 414
LCK 314
LCK 114
B1

Determination of the COD with the cuvet test of Dr. Lange
2 - 30 mg/ml
15 - 150 mg/ml
150 - 1000 g/ml

2 Soils and contaminated soils

2.1 Sampling

AbfKlärV, Anhang 1
1992-06
TST
(MA)

Sampling of agricultural used soils

BBodSchV, Anhang 1
1999-07
TST

Requirements for sampling, analysis and quality assurance in investigations

DIN 4021
1990-10
B1, TST, HE
(A)

Soil; exploration by excavation and borings; sampling

DIN 4022-1
1987-09
B1, ESP, HE
(A)

Subsoil and groundwater; classification and description of soil and rock; borehole logging of soil and rock not involving continuous core sample recovery

DIN 4022-2
1981-03
B1, ESP, HE
(A)

Subsoil and groundwater; Designation and description of soil types and rock; Stratigraphic representation for borings in rock

DIN 4022-3
1982-05
B1, ESP, HE
(A)

Subsoil and groundwater; Designation and description of soil types and rock; Borehole log for boring in soil (loose rock) by continuous extraction of cores

DIN 4023
1984-03
B1, ESP, HE
(A)

Borehole logging; graphical representation of the results

DIN 4030-2 1991-06 TST	Assessment of water, soil and gases for their aggressiveness to concrete; collection and examination of water and soil samples
DIN 4094 1990-12 B1 (A)	Construction areas; reconnaissance with probes
DIN ISO 10381-1 2003-08 B1, ESP, HE, TST (A), (B)	Soil quality; Sampling; Part 1: Guidance on the design of sampling programmes
DIN ISO 10381-2 2003-08 B1, ESP, HE, TST (A), (B)	Soil quality; Sampling; Part 2: Guidance on sampling techniques
DIN ISO 10381-3 2002-08 B1, ESP, HE, TST (A), (B)	Soil quality; Sampling; Part 3: Guidance on safety
DIN ISO 10381-4 2004-04 B1, ESP, HE, TST (A), (B)	Soil quality; Sampling; Part 4: Guidance on the procedure for investigation of natural, near-natural and cultivated sites
E DIN ISO 10381-3 1996-02 HE (MB)	Soil quality; Sampling - Part 3: Safety instructions
E DIN ISO 10381-5 2004-06 B1, ESP, HE, TST, SW (A)	Soil quality; Sampling; Part 5: Guidance on the procedure for the investigation of urban and industrial sites with regard to soil contamination
E DIN ISO 10381-8 2004-01	Soil Quality - Sampling - Part 8: Guidance on the sampling of stockpiles

2.1.1 Additional valid documents

ad-hoc-Arbeitsgruppe Boden 1996-01 B1, ESP, HE (A)	Instructions for taking soil samples, Geol. Jb. [Geological Yearbook], Hannover 1996, 39 pages
Arbeitsgruppe Bodenkunde 1995-01 B1, ESP, HE (A)	Introduction to soil mapping, 4th Edition, Hannover, 1995

<p>BAM-OFD H jeweils gültiger Stand 2001-01 B1, ESP, HE (A)</p>	<p>Requirements for examination methods for examination and evaluation of areas and sites which are contaminated or suspected of being contaminated on government property</p>
<p>BBodSchV 1999-07 ESP, HE, TST (B)</p>	<p>Federal Soil Protection and Abandoned Hazardous Site Regulation, 12 July 1999 (BGBl. I p. 1554)</p>
<p>ITVA 1995-01 B1, ESP</p>	<p>Working aid F2-1: Dissolution process to get samples for examination of suspect areas and closed dumps; Ingenieurtechnischer Verband Altlasten [Society for Engineering Technology of Closed Dumps]</p>
<p>LWA-Materialien, Altlasten, Sanierung, Band 6 1992-01 B1, ESP, HE</p>	<p>Volume 6: Materials for determination and cleanup of old dumps, mobilization of heavy metals in pore water from contaminated soils and deposits; development of an elution process with predictive power</p>
<p>NLfB / BGR 1991-01 B1, ESP, HE (A)</p>	<p>Key to geology symbols, Hannover, 1991</p>
<p>Umweltbundesamt UBA Texte 26/95 1995-01 B1, ESP, HE (A)</p>	<p>Procedure for handling pollutant investigations in soils; Part 1: Preliminary remarks and theoretical principles; Part 2: Introduction to procedure</p>
<p>Umweltbundesamt UBA Texte 10/95 1995-10 B1, ESP, HE (A)</p>	<p>Method handbook for soil protection I</p>

2.2 Pre-treatment of samples

<p>AbfKlärV 1992-04 TST (MA)</p>	<p>Sample pre-treatment, determination of heavy metals, plant nutrients, pH-value</p>
<p>BBodSchV, Anhang 1, 3.1.2 1999-07 HE (B)</p>	<p>Preparation of a saturated leachate</p>
<p>BioAbfV, Anhang TST</p>	<p>Determination of the soil type</p>
<p>DIN 18123 1996-11 TST (MA)</p>	<p>Soil; investigation and testing; Determination of grain-size distribution</p>

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DIN 18123 1996-11 B1	Soil; investigation and testing; Determination of grain-size distribution
DIN 19682-13 1997-04 HE	Methods of soil investigations for agricultural water engineering; Field tests; Part 13: Determination of carbonate, sulfide, pH-value and iron(II)-ions
DIN 19684-3 1977-02 TST	Methods of soil investigations for agricultural water engineering; Chemical laboratory tests; Part 3: Determination of the loss on ignition and the residue of soil after ignition
DIN 19730 1997-06 B1, HE, SW, TST (A), (B), (MB)	Soil quality; Extraction of trace elements with ammonium nitrate solution
DIN 38414-S 22 2000-09 TST	Determination of freeze-dried residue and production of the freeze-dried weight of a sludge
DIN 38414-S 4 1984-10 TST	Determination of leachability by water
DIN EN 12176 (S 5) 1998-06 TST	Characterization of sludge; Determination of the pH-value
DIN EN 12879 (S 3) 2001-02 TST (MA)	Determination of the loss on ignition of dry mass
DIN EN 12880 (S 2) 2001-02 TST (MA)	Determination of the moisture content and the dry residue respectively the dry solid substance
DIN EN 13346 (S 7) 2001-04 TST	Digestion with aqua regia for subsequent determination of the acid soluble portion of metals
DIN ISO 11272 2001-01 HE	Soil quality; Determination of dry bulk density
DIN ISO 11464 1996-12 B1, ESP, HE, SW, TST (A), (B), (MB)	Soil quality; Pre-treatment of samples for physico-chemical analysis
DIN ISO 11465 1996-12 TST (MA)	Soil quality; Determination of dry matter and water content on a mass basis, Gravimetric method

DIN ISO 11466 1997-06 B1, HE (A), (B), (MA), (MB)	Soil quality; Extraction of trace elements soluble in aqua regia
DIN ISO 14507 2004-07 B1, HE (A), (B), (MB)	Soil quality; Sample pre-treatment for determination of organic contaminants in soil
FGSV Nr. 28/1 (E) 1994-02 HE	Determination of the leachable substances (German: Trogeluat)
Merkblätter des LUA-NRW Nr. 20 HE	Preparation of a saturated leachate

2.3 Physical and physico-chemical parameters

DIN 18123 1996-11 B1, HE, TST (A), (B), (MA), (MB)	Soil; investigation and testing; Determination of grain-size distribution
DIN 19684-3 2000-08 HE, TST	Methods of soil investigations for agricultural water engineering; Chemical laboratory tests; Part 3: Determination of the loss on ignition and the residue of soil after ignition
DIN EN 12176 (S 5) 1998-06 TST (MA)	Characterization of sludge; Determination of pH-value
DIN ISO 10390 2002-11 B1, HE (A), (B), (MB)	Soil quality; Determination of pH
DIN ISO 11265 1997-06 B1, HE (A), (B)	Soil quality; Determination of the specific electrical conductivit
DIN ISO 11465 1996-12 B1, HE (A), (B), (MA), (MB)	Soil quality; Determination of dry matter and water content on a mass basis, Gravimetric method
VDLUFA Methodenbuch Band I 1991-01 SW	Determination of the dry bulk density, pH-value and salinity

2.4 Nonmetals, Anions

DIN 19734 1999-01 B1 (A)	Soil quality - Determination of chromium(VI) in phosphate extract
DIN 38405-D 24 1987-05 SW (A), (B)	Photometric determination of chromium(VI) using 1,5-diphenylcarbonohydrazide
DIN 38405-D 32 2000-05 B1, TST (A), (MB)	Determination of antimony by atomic absorption spectroscopy (Deviation for soils: <i>determination after aqua regia extraction according to ISO 11466</i>)
DIN 38405-D 35 2000-09 HE (A)	Determination of arsenic by atomic absorption spectrometry after electrothermal atomisation
DIN 51084 1990-07 B1, TST (A)	Testing oxide raw materials and starting materials for ceramics, glass and glazes; determination of the fluoride content (Variation for soils: disintegration by melting and ionometric determination)
DIN EN ISO 11969 (D 18) 1996-11 B1, HE (A), (B), (MB)	Water quality; Determination of arsenic; Atomic absorption spectrometric method (hydride technique)
DIN EN ISO 14403 (D 6) 2002-07 HE (MB)	Water quality; Determination of total cyanide and free cyanide by continuous flow analysis (Deviation: <i>application to soils</i>)
DIN ISO 11261 1997-05 HE, SW (A)	Soil quality; Determination of total nitrogen, Modified Kjeldahl method
DIN ISO 14256 1990-10 TST	Soil quality; determination of nitrate, nitrite and ammonia in freshly soils
E DIN ISO 11262 2003-09 B1, HE, TST (A), (B), (MB)	Soil quality; Determination of cyanide

2.5 Elements

DIN 38405-E 5 1983-10 HE	Determination of ammonia-nitrogen (Deviation for soils: <i>slurrying with phosphate buffered solution</i>)
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DIN EN ISO 17294-2 2005-02 HE	Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 2: Determination of 62 elements
DIN ISO 20279 2002-05 B1 (A)	Soil quality; extraction of thallium from soils and determination by electrothermal atomic absorption spectrometry
VDLUFA Methodenbuch Band I 1991-01 SW	Determination of phosphorus and potassium in CAL extract
VDLUFA Methodenbuch Band I 1991-01 SW	Determination of the dry density, pH and salt content

2.5.1 Determination of elements by atomic spectrometry

DIN 38405-D 32 2000-05 TST	Determination of antimon by atomic absorption spectroscopy (Deviation for soils: <i>determination after aqua regia extraction according to ISO 11466</i>)
DIN 38406-E 26 1997-07 HE, TST (A)	Determination of thallium by atomic absorption spectrometry (AAS) using electrothermal atomisation
DIN 38414-S 12 1986-11 TST (MA)	Determination of phosphorous in sludges and sediments
DIN EN 1483 (E 12) 1997-08 B1, HE, SW, TST (A), (MA), (MB)	Water quality; determination of mercury (Variation for soils: <i>determination in aqua regia extract solution according to DIN ISO 11466, compensation for matrix interferences</i>)
DIN EN ISO 11885 (E 22) 1998-04 B1, HE, SW, TST (A), (MB), (MA)	Water quality; Determination of 33 elements by inductively coupled plasma atomic emission spectroscopy (Deviation for sewage sludges: <i>Determination to aqua regia extract solution according to DIN ISO 11466, compensation of matrix interferences</i>)
DIN EN ISO 11969 (D 18) TST 1996-11	Water quality; Determination of arsenic; Atomic absorption spectrometric method (hydride technique)
DIN ISO 11047 2003-05 B1, TST (A), (B), (MB), (MA)	Soil quality; Determination of cadmium, chromium, cobalt, copper, lead, manganese, nickel and zinc; flame- and electrothermal atomic absorption spectrometric procedure
VDLUFA Methode TST (MA)	Determination of magnesium in the calcium chloride extraction

VDLUFA Methode 1991-01 HE, TST (MA)	Determination of phosphorus and potassium in a extraction
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2.5.2 Determination of elements by photometry

DIN 19734 1999-01 TST, HE	Soil quality - Determination of chromium(VI) in phosphate extract
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2.6 Organic components

AbfKlärV Anhang 1 1992-04 B1	Basic substances
AbfKlärV, Anhang 1, 1.3.3.1 1992-04 HE (A)	Determination of polychlorinated biphenyls
DIN 38407-F 17 1999-02 TST	Determination of selected nitroaromatic compounds by gas-liquid chromatography
DIN 38407-F 2 1993-02 HE, TST (A), (MB)	Determination of low volatile halogenated hydrocarbons by gas chromatography
DIN 38407-F 9-1 1991-05 B1, HE, TST (A), (MB)	Determination of benzene and some derivations by gas chromatography by head space analysis (Deviation: <i>covered with methanol and detection by GC-MS</i>)
DIN 38407-F 9-2 1991-05 B1, HE, TST (A), (MB)	Determination of benzene and some derivatives by gas chromatography and extraction (Deviation for soils: <i>covered with pentane and water</i>)
DIN 38409-H 16 1984-06 HE (A)	Determination of the phenol index (Variation for soils: suspension of the samples in distilled water, pH 0.5; steam distillation, photometry)
DIN 38409-H 16-3 1984-06 B1 (A)	Photometric Determination of the phenol index by aminoantipyrin after destillation without dye extraction (Deviation for soils: <i>Suspension of the samples with distilled water; pH=0,5</i>)
DIN 38409-H 8 1984-09 HE	Determination of extractable organically bonded halogens (EOX)
DIN 38414-S 17 1989-11 B1 (A)	Determination of the organically bound halogens amenable to stripping and to extraction

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DIN 38414-S 18 1989-11 B1, ESP (A)	Determination of adsorbed organically bound halogens (AOX)
DIN 38414-S 20 1996-01 TST (A), (MA), (MB)	Determination of 6 polychlorinated biphenyls (PCBs)
DIN EN 14039 2000-12 HE, TST	Characterization of waste; Determination of hydrocarbon content in the range of C10 - C40 by gas chromatography
DIN EN ISO 10301 (F 4) 1997-08 B1, HE	Water quality; Determination of highly volatile halogenated hydrocarbons, Gas-chromatographic methods
DIN EN ISO 10301 (F 4) 1997-08 B1, TST	Determination of easily volatile halogenated hydrocarbons by gas-chromatography
DIN EN ISO 6468 (F 1) 1997-02 TST	Water quality; Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes; Gaschromatographic method after liquid-liquid extraction
DIN ISO 10382 2003-05 B1, HE, TST (A), (B), (MB)	Soil quality; Determination of organochlorine pesticides and polychlorinated biphenyls; Gaschromatographic method with electron capture detection
DIN ISO 10694 1996-08 B1, HE (A), (MB)	Soil quality; Determination of organic and total carbon after dry combustion (elementary analysis)
DIN ISO 13877 2000-01 B1, HE, TST (A), (B), (MB)	Soil quality; Determination of polynuclear aromatic hydrocarbons; method using high-performance liquid chromatographic
DIN ISO 14154 1998-06 HE (A), (B)	Soil quality; Determination of some selected chlorophenols in soils; Gaschromatographic method
E DIN ISO 16703 2002-03 B1, TST (A), (B), (MB)	Soil quality; Determination of mineral oil content by gas-chromatography
E DIN ISO 18287 2004-11 HE	Soil quality - Determination of polycyclic aromatic hydrocarbons (PAH) - Gas chromatographic method with mass spectrometric detection (GC-MS)
E DIN ISO 18287 2004-11 HE	Soil quality - Determination of polycyclic aromatic hydrocarbons (PAH) - Gas chromatographic method with mass spectrometric detection (GC-MS)

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<p>EPA 8260B 1996-12 TST</p>	<p>Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry (GC/MS): Capillary Technique</p>
<p>EPA 8270C 1996-12 TST</p>	<p>Semivolatile Organic Compounds by Gas Chromatography / Mass Spectrometry (GC/MS): Capillary Column Technique</p>
<p>Handbuch Altlasten HLOG, Band 7, Teil 1 1998-01 HE, TST</p>	<p>Determination of PAH in solids of contaminated sites</p>
<p>Hausverfahren SOP M 123 1998-03 B1, TST (A)</p>	<p>GC-MS-Screening; qualitative und semi-quantitative analysis of water, soils, waste and other solids samples after extraction with toluene, in exceptional cases with other solvents</p>
<p>Hausverfahren SOP M 640 HE</p>	<p>GC-MS-Screening, qualitative and semiquantitative analysis of water, soil, waste and other solids after extraction with toluene or other solvents</p>
<p>Hausverfahren SOP M 057 1999-12 TST, HE</p>	<p>G. Liebezeit: HPLC Gradient Elution of dinitrohydrazones of Aldehyds and Ketones from aqueous samples; Journal HRC & CC Vol. 5 / 82; Page 215 - 216</p>
<p>Hausverfahren SOP M 596 2005-10 DD</p>	<p>Determination of nitro- and amino-aromatics, nitramines, and nitric acid esters in soils by HPLC [German "HPLV" assumed to be error for "HPLC"]</p>
<p>HLOG Altlasten Handbuch Band 7, Wiesbaden 2001 TST</p>	<p>Determination of mineral oil hydrocarbons by capillary gas chromatography in solids of contaminated sites</p>
<p>HLOG Handbuch Altlasten Band 7 2000-10 HE, TST</p>	<p>Determination of BTEX and volatile hydrocarbons in solids of contaminated sites</p>
<p>ISO 8165-2 1999-07 HE (A), (MB)</p>	<p>Water quality; Determination of selected monovalent phenols; Part 2: Method by derivatization and gas chromatography (Deviation: <i>Set to pH 9, extraction with n-hexane, derivatisation with pentafluorobenzoylchloride, detection by GC-ECD</i>)</p>
<p>ISO/CD 15009 2002-10 TST (A)</p>	<p>Gas-chromatographic determination of the content of volatile aromatic hydrocarbons, naphthalene and volatile halogenated hydrocarbons - Purge-and-trap method with thermal desorption</p>
<p>ISO/TR 11046 1994-06 B1, TST, HE (A), (B), (MB)</p>	<p>Soil quality; Determination of mineral oil content-Method by infrared spectrometry and gas chromatographic method</p>
<p>LAGA KW 85 1993-03 B1 (A)</p>	<p>Determination of the hydrocarbon content in old waste dumps - Variation for soils: Soxhlet extraction with 1,1,2-trichlorotrifluoroethane, chromatographic clean-up, IR spectrometry (possibly extraction in an ultrasonic bath)</p>

Merkblätter des LUA-NRW
1994-06
B1, HE
(A) Determination of polycyclic aromatic hydrocarbons (PAH) in soil samples

Merkblätter des LUA-NRW
Nr. 6
1994-06
B1, HE Determination of polychlorinated Biphenyls (PCB) in soil samples

2.8 Summary effect and material mixtures

DIN 19738
2004-07
HE Soil quality - Absorption availability of organic and inorganic pollutants from contaminated soil material

DIN 38409-H 16-1
1984-06
TST Determination of the phenol index

DIN 38409-H 16-2
1984-06
TST Determination of the phenol index by 4-Aminoantipyrin after distillation with dye extraction
(Deviation for soils: *Extraction with 1 mol/l sodium hydroxide solution*)

DIN 38409-H 16-3
1984-06
B1, TST Determination of the phenol index by 4-Aminoantipyrin without distillation with dye extraction
(Deviation for soils: *Slurry the sample with distilled water, pH=0,5*)

DIN 38414-S 17
1989-11
TST Determination of strippable and extractable organically bound

DIN 38414-S 18
1989-11
TST
(MA) Determination of adsorbed organically bound halogens (AOX)
organically bound halogens (AOX)

DIN 38414-S 9
1986-09
TST Determination of the chemical oxygen demand (COD)

DIN ISO 11277
2002-08
TST Soil quality - Determination of the particle size distribution in mineral soil material - procedure with sieving and sedimentation after removal of soluble salts, organic substance and carbonates

DIN ISO 13536
1997-04
TST Soil quality - Determination of the potential cation exchange capacity and of the exchangeable cations using a barium chloride solution buffered at pH 8.1

DIN ISO 38409-H 18
1981-02
TST Determination of hydrocarbons

ISO/TR 11046
1994-06
TST Soil quality - Determination of mineral oil content - Method by infrared spectrometry and gas chromatographic method

3 Soil air and indoor air

Hausverfahren
SOP M 213
1998-05
DD

GC-MS-Screening of volatile organic compounds

3.1 Sampling

DIN ISO 10381-7
2004-02
B1

Soil quality - Sampling - Part 7: Guidance on sampling of soil gas

DIN ISO 16000-3
2002-08
HE

Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds; Active sampling method

Hausverfahren
SOP M 771
2004-08
HE
(MB)

Determination of the on-site parameters CO₂, CH₄, H₂S, O₂ and the total parameter of trace gases

VDI 3865 Blatt 2
1998-01
HE
(A), (B)

Measurement of organic soil pollutants - Techniques of active sampling of soil gas

VDI 3865 Blatt 2
1998-01
B1
(A)

Measurement of organic contaminants of soils; Techniques for active collection of soil air samples (Variants 1, 2, 3 and 5)

3.2 Organic components

DIN 38407-F 2
1997-08
HE
(A)

Determination of low volatile halogenated hydrocarbons by gas chromatography

DIN 38407-F 9-1
1991-05
B1, HE, TST
(A)

Determination of benzene and some derivations by gas chromatography by head space analysis
(Deviation to soil air: *Enrichment to activated coal, desorption with CS₂*)

DIN EN ISO 10301 (F 4)
1997-08
B1, DD, HE, TST
(A)

Water quality; Determination of highly volatile halogenated hydrocarbons, Gas-chromatographic methods
(Deviation to soil air: *Enrichment to activated coal, desorption with CS₂*)

G. Liebezeit
Journal of HRC & CC
5 (April 1982) 215-216
HE

HPLC Gradient Elution of Dinitrophenylhydrazones of Aldehydes and Ketones from Aqueous Samples
(Deviations: *no additional acidification, extraction with i-hexane*)

Hausverfahren SOP M 310 2003-10 HE	Determination of nitrogen, oxygen, carbon dioxide, carbon monoxide, methane hydrogensulfide in soil gases by GC-MS
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VDI 3865 Blatt 3 1998-06 B1, DD, HE, TST (A), (B), (MB)	Measurement of organic soil pollutants - Gas-chromatographic determination of volatile organic compounds in soil gas adsorption at activated carbon and desorption with organic solvents
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4 Determination of mineral oils

AltöIV, Anlage 1 2002-04 B1, TST (MA)	Sampling of mineral oils
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AltöIV, Anlage 1 2002-04 TST (MA)	Determination of total halogen
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DIN 51408-1 1983-06 B1	Testing liquid petroleum hydrocarbons; determination of the chlorine content; combustion according to Wickbold
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DIN 51527-1 1987-05 HE	Testing petroleum products; determination of polychlorinated biphenyls (PCBs); liquid chromatographic preseparation and determination of six selected PCBs using a gas chromatograph with electron capture detector (ECD)
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DIN 51577-1 1973-02 B1	Testing petroleum products and similar products; determination of the chlorine content; combustion in the Grote-Krekeler bomb. (Variation: Extension to sulfur and fluorine, ion-chromatographic determination)
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DIN 51720 2001-03 B1	Testing solid fuels; determination of volatile components (Variation: combustion with the Wickbold apparatus in a nitrogen atmosphere)
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DIN 51721 2001-08 B1	Testing solid fuels; determination of the content of carbon and hydrogen; Radmacher-Hoverath procedure (Variation: extension to determination of nitrogen)
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DIN 51755 1974-03 B1	Testing petroleum and other flammable liquids; determination of the closed-cup flash point by the Abel-Pensky procedure
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DIN 51900-1 2000-04 B1	Testing solid and liquid fuels; determination of the fuel value with a bomb calorimeter and calculation of the heating value; Part 1: General information, basic equipment, basic procedure
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DIN EN 12766-1 2000-11 B1, TST (MA)	Petroleum products and used oils; Determination of PCBs and related compounds - Part 1: Separation and determination of selected PCB congeners by gas chromatography (GC) using an electronic capture detector (ECD)
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DIN EN 12766-2 2000-11 TST (MA)	Petroleum products and used oils; Determination of PCBs and related compounds - Part 2: Calculation of polychlorinated biphenyl (PCB) content
DIN EN 12766-3 2002-01 B1	Determination of PCBs and related products; Part 3: Determination and calculation of the contents of polychlorinated terphenyls (PCT) and polychlorinated benzyltoluenes (PCBT) by gas chromatography with an electron capture detector (ECD)
DIN EN 24260 1994-05 B1	Petroleum products and hydrocarbons: determination of the sulfur content; Wickbold combustion (Variation: extension to determination of chlorine)

5 Determination of compost

Methodenbuch zur Analyse von Kompost Bundesgütegemeinschaft Kompost e. V. mit Änderungen vom 01.01.1999, Kapitel II, Page 12 - 62 1998-07 B1	Determination and evaluation of the foreign material and stone content
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5.1 Sampling and Pre-treatment

BioAbfV 1998-09 TST, SW (MA)	Sampling of compost
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5.2 Analytical methods according to the Quality and Test Specifications of the Bundesgütegemeinschaft Kompost e. V.

BioAbfV Anhang 2, Pkt. 2.3.1.1 1998-01 B2, GÖ	Examination of compost for Salmonella senftenberg and Salmonella species
DIN 38414-S 13 1992-03 B2, GÖ, SW	Determination of Salmonella in disinfected sewage sludges (Variation: also in soil and compost)
Methodenbuch zur Analyse von Kompost, Bundesgütegemeinschaft Kompost e. V., Kapitel II, S. 9 - 53 1994-03 TST (MA)	Determination of water content

5.3 Methods of the Clarified Sludge Regulation (AbfKlärV) and of the Biowaste Regulation (BioAbfV)

§ 3 Absatz 4, BioAbfV, Anhang 2 1998-09 TST, SW (MA)	Viable seeds and plant parts that can bud
§ 4 Abs. 5 BioAbfV (DIN EN ISO 11885) 1998-05 SW (MA)	Determination of heavy metals
§ 4 Abs. 5 BioAbfV Anhang 3 1998-09 SW (MA)	Determination of the salt content
§ 4 Abs. 5 BioAbfV Anhang 3 1998-09 SW (MA)	Determination of foreign objects
AbfKlärV, Anhang 1 1992-06 TST (MA)	Determination of basic substances
AbfKlärV, Anhang 1 1.3.1 1992-04 TST (MA)	Determination of nutrients, of pH, of the dry residue, of the loss on ignition, and of adsorbed organic halogens (AOX)
AbfKlärV, Anhang 1 Punkt 1.3.3.1 1992-04 TST (MA)	Determination of polychlorinated biphenyls
BioAbfV, Anhang 1998-09 TST, SW (MA)	Determination of the crude dry density
BioAbfV, Anhang 2 1998-09 TST, SW (MA)	Examination of salmonella
DIN 51724-1 1999-06 TST	Determination of sulphur content
LAGA-Richtlinie CN 2/79 1983-12 TST	Determination of cyanide in waste

LAGA-Richtlinie EW 1/77
1977-01
TST Determination of ability to elute solid and sludgy wastes with water

LAGA-Richtlinie SM 2/79
1979-02
TST Determination in solid and sludgy wastes

6 Tests in the areas of spas, mineral, and spring water, natural mineral waters, ground water / surface water, and in the area of pool water in swimming and bathing pools

6.1 Microbiological Analyses

Alternativverfahren Colilert
Quantitray der Fa. Idexx
TST Detection and counting of Escherichia coli and coliform microorganisms

ASU L 59.00
1988-05
B2 Taking samples from mineral water, well water and table water [= mineral water?]

ASU L 59.00-1
1988-05
B2 Detection of Escherichia coli and coliform microorganisms in natural mineral water and well water; reference procedure

ASU L 59.00-2
1988-05
B2 Detection of fecal streptococci in natural mineral water and well water; reference procedure

ASU L 59.00-3
1988-05
B2 Detection of Pseudomonas aeruginosa in natural mineral water and well water; reference procedure

ASU L 59.00-4
1988-05
B2 Detection of sulfite-reducing spore-forming anaerobes in natural mineral water and well water; reference procedure

ASU L 59.00-5
1988-05
B2 Determination of the colony count in natural mineral water and well water; reference procedure

BgesundhBl.
S. 911 – 915
GÖ, SW, TST
2000-11 Investigation for Legionella pneumophilla in drinking water and swimming pool water

DIN 10183-3
1992-10
SW Determination of Escherichia coli; fluorescence optical method with parallel determination of coliforms

DIN 19643
Nr. 5.3.1.1
GÖ Pseudomonas aeruginosa

DIN 38411-K 1
1983-02
ESP, GÖ, B2, TST, S, W Preparation for the microbiological examination of water samples

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<p>DIN EN 12780 2002-08 TST</p>	<p>Detection and enumeration of pseudomonas aeruginosa - membrane filtration method</p>
<p>DIN EN ISO 6222 (K 5) 1999-07 TST (MW)</p>	<p>Water quality - Enumeration of culturable micro-organisms - Colony count by inoculation in a nutrient agar culture medium</p>
<p>DIN EN ISO 7899-2 2000-11 TST (MW)</p>	<p>Detection and enumeration of intestinal enterococci - Part 2: Membrane filtration method</p>
<p>DIN EN ISO 9308-1 2001-07 SW, TST (MW)</p>	<p>Water quality - Detection and enumeration of Escherichia coli coliform bacteria - Part 1: Membrane filtration method</p>
<p>DIN V ENV ISO 13843 (K 2) 2001-12 TST</p>	<p>Water quality; Guideline for validation of microbiological methods</p>
<p>EU-Richtlinie 76/160/EWG Anhang 1 B2, GÖ, TST</p>	<p>Determination of coliform microorganisms in pool water, surface water, and raw water</p>
<p>EU-Richtlinie 76/160/EWG Anhang 2 B2, GÖ, TST</p>	<p>Determination of Escherichia coli in pool water, surface water, and raw water</p>
<p>EU-Richtlinie 76/160/EWG Anhang 3 B2, GÖ, TST</p>	<p>Determination of Streptococcus faecalis (Enterococci) in pool water, surface water, and raw water</p>
<p>EU-Richtlinie 76/160/EWG Anhang 4 B2, GÖ, TST</p>	<p>Determination of Salmonella species in pool water, surface water, and raw water</p>
<p>EWGRL 160/76 1980-02 SW</p>	<p>Directive of the European Community to the quality of bathing freshwater - detection of total coliform microorganisms, Escherichia coli, Streptococcus faecalis and Salmonella</p>
<p>Hausverfahren SOP M 392 2002-03 B2</p>	<p>Determination of the aerobic microbial count at 20 °C and 36 °C</p>
<p>Hausverfahren SOP M 393 2002-03 B2</p>	<p>Detection of Pseudomonas aeruginosa</p>
<p>Hausverfahren SOP M 394 2002-03 B2</p>	<p>Detection of Escherichia coli and coliform microorganisms</p>
<p>ISO 11731-1 1998-05 TST</p>	<p>Detection and enumeration of Legionella</p>

ISO CD 6461-2 2002-12 TST	Detection and enumeration of clostridium perfringens
MTVO Anlage 3 2003-03 SW, TST	Process for microbiological examination from the mineral water regulation; - detection of Escherichia coli and total coliform microorganisms - detection of fecal Streptococci - detection of Pseudomonas aeruginosa - detection of sulfite-reducing spore-forming [incomplete]
Trinkwasserverordnung 2001-05 SW, TST	Detection and counting of Escherichia coli and coliform bacteria; process using the Colilert-18 test kit
Trinkwasserverordnung 05.12.1990 SW	Detection and counting of Escherichia coli and coliform bacteria by liquid enrichment
TrinkwV Anlage 1 2001-01 GÖ, SW, TST	Microbiological determinations according to the German drinking water regulation, SOP M 199
TrinkwV Anlage 1 Nr. 5 05.12.1990 GÖ, SW, TST	Determination of the colony count at 20 °C and 36 °C
TrinkwV Anlage 5 2001-01 TST	Detection of Clostridium perfringens (including spores) by membrane filtration (mCP method)

6.2 Physical and physical-chemical characteristics

DEV B 1/2 1971-01 SW, TST	Testing of odour and flavour
DIN 38404-C 4 1976-12 TST	Determination of temperature
DIN 38404-C 5 1984-01 TST	Determination of pH value
DIN 38404-C 6 1984-05 TST	Determination of the oxidation reduction (redox) potential
DIN EN 27888 (C 8) 1993-11 TST (A)	Water quality; Determination of electrical conductivity
DIN EN ISO 7027 (C 2) 2000-04 TST (A)	Water quality; Determination of turbidity

6.3 Natural mineral waters, official collection of investigative procedures according to the LMBG

ASU L 59.11-1 2002-12 TST	General notes to the examinations of natural mineral waters
ASU L 59.11-13 1985-12 TST	Determination of ammonium nitrogen in natural mineral water
ASU L 59.11-14 1986-11 TST	Determination of calcium and magnesium in natural mineral water
ASU L 59.11-17 1986-11 TST	Determination of iron in natural mineral water
ASU L 59.11-18 1986-11 TST	Determination of fluoride in natural mineral water
ASU L 59.11-2 1998-09 TST	Determination of arsenic in natural mineral water atomic absorption spectrometry-hydride technique
ASU L 59.11-22 1986-11 TST	Determination of the nitrite ion in natural mineral water
ASU L 59.11-25 1986-11 TST	Determination of phosphorous compounds in natural mineral water
ASU L 59.11-3 2000-07 TST	Determination of lead, cadmium, chromium, manganese and nickel in natural mineral water by graphite-furnace atomic absorption spectrometry (AAS)
ASU L 59.11-5 1998-09 TST	Determination of mercury in natural mineral water by atomic absorption spectrometry (AAS), hydride method
ASU L 59.11-6 1985-12 TST	Determination of silver, cobalt, copper, nickel and zinc in natural mineral water
ASU L 59.11-8 1998-09 TST	Determination of selenium in natural mineral water by atomic absorption spectrometry (AAS) hydride method

7 Chemical and organoleptic parameters according to the Drinking Water Ordinance: 2001 *

7.1 Sampling and Pre-treatment

DIN 38402-A 14 1986-03 B1, ESP, GÖ, HE, SW, H	Sampling of untreated water and drinking water
DIN EN 25667-1 (A 4) (ISO 5667-1: 1980 with ISO 5667-1: 1996-02 Technical Corrigendum) 1993-11 B1, ESP, GÖ, HE, SW	Water quality; sampling; part 1: guidance on the design of sampling programmes
DIN EN 25667-2 (A 3) (ISO 5667-2: 1991) 1993-07 B1, ESP, GÖ, HE, SW	Water quality; sampling; part 2: guidance on sampling techniques
DIN EN ISO 5667-3 (A 21) 2004-05 B1, HE, SW (A)	Water quality; Sampling; Part 3: Guidance on the preservation and handling of samples

7.2 Microbiological parameters and indicator parameters

Alternativverfahren Colilert® Quantitray der Fa. Indexx GÖ, TST	Detection and counting of Escherichia coli and coliform bacteria
BGesundhBl. 2000.43 page 911 - 915 GÖ, TST	Determination of legionella
DIN 38411-K 1 1983-02 B2, ESP, GÖ, SW, TST	Preparation for the microbiological examination of water samples
DIN 38411-K 8 1982-05 B2, SW, TST	Detection of Pseudomonas aeruginosa by aeruginosa
DIN EN 12780 (K 11) 2002-08 B2, GÖ, SW, TST	Water quality - Detection and enumeration of Pseudomonas aeruginosa by membrane filtration
DIN EN 26461-2 (K 7) 1993-04 B2, GÖ, SW, TST	Water quality; detection and enumeration of the spores of sulfite-reducing anaerobes (clostridia); part 2: method by membrane filtration
DIN EN ISO 6222 (K 5) 1999-07 B2, GÖ, SW, TST	Water quality - Enumeration of culturable micro-organisms – Colony count by inoculation in a nutrient agar culture medium

* According to the requirements of the legislator, this accreditation does not replace the recognition or approval procedure of the responsible authority.

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DIN EN ISO 7899-2 (K 15) 2000-11 B2, GÖ, SW, TST	Water quality - Detection and enumeration of intestinal enterococci Part 2: Membrane filtration method
DIN EN ISO 9308-1 2001-07 B2, GÖ	Water Quality - Detection and enumeration of Escherichia coli and coliform bacteria in surface and waste water - Part 1: membrane filtration method
DIN V ENV ISO 13843 (K 2) 2001-12 B2, GÖ, SW, TST	Water quality; Guideline to validation of microbiological methods
Trinkwasserverordnung 2001-05 SW, TST	Detection and counting of Escherichia coli and coliform bacteria; process using the Colilert-18 test kit
Trinkwasserverordnung 05.12.1990 B2	Detection and counting of Escherichia coli and coliform bacteria by liquid enrichment
Trinkwasserverordnung Anlage 1, Nr. 5 05.12.1990 B2, GÖ, SW, TST	Determination of the colony count at 20 °C and 36 °C
Trinkwasserverordnung 21.05.2001 B2, GÖ, SW, TST	Detection of Clostridium perfringens by membrane filtration (mCP-method)
Trinkwasserverordnung 05.12.1990 B2	Quantitative determination of the cultivable microorganisms; determination of the colony count by inoculation into a nutrient agar medium (colony count at 20 °C and 36 °C)
Trinkwasserverordnung 05.12.1990 B2, GÖ, TST	Detection of sulfide-reducing spore-forming anaerobes (Clostridia) by liquid enrichment
Trinkwasserverordnung 05.12.1990 B2, GÖ, TST	Detection of fecal streptococci by liquid enrichment
Trinkwasserverordnung Anlage 1 21.05.2001 B2, GÖ, TST	Microbiological examination Process of the Drinking Water Regulation, SOP M 199

7.2.1 Additional valid documents

Hausverfahren SOP M 199 2004-01 B2	Microbiological examination of water according to the guidelines of the Drinking Water Regulation
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7.3 Selected chemical and organoleptic parameters to appendix 2 and 3

DEV B 1/2 1971-01 HE, SW	Examination of taste and odour
DIN 38404-C 4 1976-12 HE	Determination of temperature
DIN 38405-C 5 1984-01 B1, HE, SW, TST	Determination of pH value
DIN 38405-D 1 1985-12 B1, HE, SW, TST	Determination of chloride ions
DIN 38405-D 1-2 1985-12 SW	Determination of Chloride
DIN 38405-D 13 1981-02 B1, HE, TST	Determination of Cyanides
DIN 38405-D 23 1994-10 B1, HE, SW, TST	Determination of selenium by atomic absorption spectrometry
DIN 38405-D 24 1987-05 B1, HE, TST	Photometric determination of chromium (VI) using 1,5-diphenylcarbonohydrazide
DIN 38405-D 32 2000-05 B1, HE, TST	Determination of antimony by atomic absorptions spectrometry
DIN 38405-D 4 1985-07 B1, HE, SW, TST	Determination of fluoride
DIN 38405-D 5 1985-01 SW	Determination of sulfate ions
DIN 38405-D 9 1979-05 B1, SW, TST	Determination of nitrate ion
DIN 38406-E 5 1983-10 B1, HE, SW, TST	Determination of ammonia-nitrogen
DIN 38406-E 6 1998-07 B1, HE, TST	Determination of lead by atomic absorption spectrometry (AAS)
DIN 38407-F 18 1999-10 HE	Determination of 15 polycyclic aromatic hydrocarbons (PAH) by high performance liquid chromatography (HPLC) with fluorescence

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DIN 38407-F 2 1993-02 HE	Determination of low volatile halogenated hydrocarbons by gas chromatography
DIN 38407-F 3 1998-07 HE	Determination of polychlorinated biphenyls
DIN 38407-F 8 1995-10 B1, HE, TST	Determination of 6 polynuclear aromatic hydrocarbons (PAH) in water by high performance liquid chromatography (HPLC) with fluorescence
DIN 38407-F 9 1991-05 B1, HE, TST	Determination of benzene and some derivatives by gas chromatography with head space analysis
DIN 38413-P 2 1988-05 B1, HE, TST	Determination of vinyl chloride by headspace gas chromatography
DIN EN 14207 2003-09 TST	Water quality; Determination of epichlorhydrin
DIN EN 1483 (E 12) 1997-08 B1, HE, SW, TST	Water quality; Determination of mercury
DIN EN 1484 (H 3) 1997-08 B1, HE, TST	Water analysis; Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)
DIN EN 1622 1998-01 B1, TST	Water quality - Determination of the threshold odour number (TON) and threshold flavour number (TFN)
DIN EN 26777 (D 10) 1993-04 SW	Water quality; determination of nitrite; molecular absorption spectrometric method
DIN EN 27888 (C 8) 1993-11 B1, HE, SW, TST	Water quality; Determination of electrical conductivity
DIN EN ISO 10301 (F 4) 1997-08 B1, HE, TST	Water quality; Determination of highly volatile halogenated hydrocarbons, Gas-chromatographic methods
DIN EN ISO 10304-1 (D 19) 1995-04 B1, HE, TST	Water quality; Determination of dissolved fluoride, chloride, nitrite, orthophosphate, bromide, nitrate and sulfate ions, using liquid chromatography of ions; Part 1: Method for water with low contamination
DIN EN ISO 10695 2000-11 TST	Determination of selected organic nitrogen and phosphorous compounds after enrichment of fluid-fluid extraction by gas chromatography
DIN EN ISO 11369 (F 12) 1997-11 B1, TST	Water quality - Determination of selected plant treatment agents - Method using high performance liquid chromatography with UV detection after solid-liquid extraction

DIN EN ISO 11885 (E 22) 1998-04 B1, HE, SW, TST	Water quality; Determination of 33 elements by inductively coupled plasma atomic emission spectroscopy
DIN EN ISO 11969 (D 18) 1996-11 B1, HE, TST	Water quality; Determination of arsenic; Atomic absorption spectrometric method (hydride technique)
DIN EN ISO 15061 2001-12 TST	Determination of dissolved bromate - Method by liquid chromatography of ions
DIN EN ISO 17993 (F 18) 2004-03 B1, HE, TST	Water quality - Determination of 15 polycyclic aromatic hydrocarbons (PAH) in water by HPLC with fluorescence detection after liquid-liquid
DIN EN ISO 5961 (E 19) 1995-05 B1, HE, TST	Water quality; Determination of cadmium by atomic absorption spectrometry
DIN EN ISO 6468 (F 1) 1997-02 HE	Water quality; Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes; Gaschromatographic ethod after liquid-liquid extraction
DIN EN ISO 7027 (C 2) 2000-04 B1, HE, SW, TST	Water quality; Determination of turbidity
DIN EN ISO 7887 (C 1) 1994-12 B1, HE, SW, TST	Water quality - Examination and determination of colour
DIN EN ISO 8467 (H 5) 1995-05 B1, HE, TST	Water quality; Determination of permanganate index
Hausverfahren SOP M 441 2003-12 TST	Determination of acrylamid in drinking and raw water by LC/MS/MS

7.4 Additional chemical drinking water parameters

DIN 38409-H 7 2004-03 B1, TST	Determination of acid and base capacity
DIN EN 12673 (F 15) 1999-05 HE	Water quality; Gas chromatographic determination of some selected chlorophenols in water
DIN EN ISO 11885 (E 22) 1998-04 B1, TST	Determination of s by inductively coupled plasma atomic emission spectroscopy

8 Tests of building materials and products

DIN V 18035-7
2002-06
B1 Sporting grounds; Part 7: Artificial grasses; tests of the effects on soil and ground water

RAL-GZ 943
2006-02
B1 Plastic covers and artificial grass covers in open-air sports fields

9 Investigation of materials, dust and wood

Hausverfahren
SOP M 342
2004-02
DD Screening of wood preservatives in materials

Hausverfahren
SOP M 342
2004-02
DD Gaschromatographic determination of low volatile hydrocarbons

Hausverfahren
SOP M 691
2004-02
DD Screening of semi volatile organic compounds in dust, materials and air

10 Examinations of industrial products, aqueous solutions, chemicals, metals and metal alloy **

10.1 Determination of elements by atomic spectrometric

Hausverfahren
SOP M 673
2004-01
TST Determination of the heavy metals lead, cadmium, chromium, copper, nickel and zinc in iron oxides

Hausverfahren
SOP M 750
2004-01
TST Determination of zinc in lip-care sticks

Hausverfahren
SOP M 751
2004-01
TST Determination of the gold content in noble metal alloys

Hausverfahren
SOP M 752
2004-01
TST Determination of titanium and bismuth in suppository pastes and salves

ISO 10188
1990-04
TST Chemical analysis of foundry materials; determination of chromium in iron and steel

ISO 10278
1995-04
TST Steel and iron; determination of the manganese content; ICP method

ISO 11535 1998-10 TST	Iron ores - Determination of various elements - Inductively coupled plasma atomic emission spectrometric method
ISO 13898-1 1997-06 TST	Chemical analysis of steel and iron; Determination of the nickel, copper and cobalt contents; ICP method; Part 1: General requirements and dissolution of the sample
ISO 13898-2 1997-06 TST	Chemical analysis of steel and iron; Determination of the nickel, copper and cobalt contents; ICP method; Part 2: Determination of the nickel content
ISO 13898-3 1997-06 TST	Chemical analysis of steel and iron; Determination of the nickel, copper and cobalt contents; ICP method; Part 3: Determination of the copper content
ISO 13898-4 1997-06 TST	Chemical analysis of steel and iron; Determination of the nickel, copper and cobalt contents; ICP method; Part 4: Determination of the cobalt content

10.2 Determination of elements by X-ray fluorescence

DIN 51418-2 1996-09 TST	X-ray fluorescence analysis (RFA); Part 2: Concepts and principles for measurement, calibration and evaluation
DIN EN ISO 12677 2003-08 TST	Chemical analysis of fire-resistant products by X-ray diffraction; fusion disintegration process
Hausverfahren SOP M 671 2004-01 TST	Determination of calcium and phosphate in calcium phosphate by X-ray fluorescence analysis

10.3 Gravimetric determination of elements

Hausverfahren SOP M 753 2004-01 TST	Iodometric determination of the iron content in iron oxide pigments
Hausverfahren SOP M 756 2004-01 TST	Acidimetric determination of the content of enriched lithium (7 Li) hydroxide
ISO 2597-1 1994-12 TST	Iron ores; Determination of total iron content - Part 1: Titrimetric method after tin (II) chloride reduction

10.4 Determination of anions by ion chromatography

Hausverfahren SOP M 754 2004-01 TST	Ion chromatographic determination of chloride in Scopolamin-n-butylbromide
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SOP M 755
2004-01
Catalysts

Hausverfahren
SOP M 757
2004-01
TST
Determination of sugars by Ion chromatography with amperometric detection

11 Determination of commodities

DIN 53315 B
1996-03
HE
Testing of leather; Determination of formaldehyde content in leather

DIN CEN/TS 14494
2003-08
HE
Leather; Chemical tests; Determination of pentachlorophenol content

ISO 8165-2
1999-07
HE
Water quality; Determination of selected monovalent phenols - Part 2: Method by derivatization and gas chromatography

12 Determination of halogenated p-dibenzodioxins and p-dibenzofurans in soils, water, air, dust, petroleum, sewage sludge, wastes, chemicals and biological materials

AbfKlärV, Anh. 1, 1.3.3.2
1992-04
ZfD
(A), (B), (MA)
Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF)

AbfKlärV, Anh. 1, 1.3.3.1
1992-04
ZfD
(A)
Determination of polychlorinated biphenyls (Deviation: GC/MS)

ASU 00.00-38/2-4
1998-09
ZfD
Examination of foods - high-fat foods; determination of pesticides and polychlorinated biphenyls (PCBs), Parts 2 - Extraction, cleanup-procedures and process for determination and validation (Deviation: *extension to PCDD/PCDF and WHO*)

DIN 38407-F 3-3
1998-07
ZfD
(A), (B), (MB)
Gas chromatographic determination of polychlorinated biphenyls (PCBs) (Limitation: 6 Ballschmiter PCBs and WHO PCBs)

DIN 38414-S 20
1996-01
ZfD
(A), (B), (MA), (MB)
Bestimmung von 6 polychlorierten Biphenylen (PCB)

DIN 38414-S 22
2000-09
ZfD
(A)
Determination of freeze-dried residue and production of the freeze-dried weight of a sludge

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<p>DIN 38414-S 24 2000-10 ZfD (A), (B), (MB)</p>	<p>Determination of polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF)</p>
<p>DIN 51527-1 1987-05 ZfD</p>	<p>Testing petroleum products; determination of polychlorinated biphenyls (PCBs); liquid chromatographic preseparation and determination of six selected PCBs using a gas chromatograph with electron capture detector (ECD) (Variation: GC/MS)</p>
<p>DIN EN 12880 (S 2) 2001-02 ZfD (A), (MA)</p>	<p>Determination of water content and of the dry residue or the dry substance</p>
<p>DIN EN 1948-2 1997-05 ZfD</p>	<p>Emissions from stationary sources: determination of the weight concentration of PCDD/PCDF Part 2: Extraction and clean-up</p>
<p>DIN EN 1948-3 1997-05 ZfD</p>	<p>Emissions from stationary sources: determination of the weight concentration of PCDD/PCDF - Part 3: Identification and quantification (Variation: high-resolution MS)</p>
<p>EG-Richtlinien 2002/69/EC 2002-07 ZfD</p>	<p>Determination of PCDD/PCDF and dioxin-like PCBs by GC/HRMS in, food as cereals, vegetable, fruit, meat and meat products, fish and fish products, milk and milk products inclusive cooking fats and eggs</p>
<p>EG-Richtlinien 2002/69/EC 26.07.2002 ZfD</p>	<p>Determination of PCDD/PCDF and dioxin-like PCBs in foods such as cereals, vegetables, fruits, meats and meat products, fish and fish products, milk and milk products, including food fat and eggs using GC/High-resolution MS</p>
<p>EG-Richtlinien 2002/69/EC 26.07.2002 ZfD</p>	<p>Determination of PCDD.PCDF and dioxin-like PCBs in animal feeds, starting materials for animal feeds, including feeds for fish and domestic animals using GC/High-resolution MS</p>
<p>EG-Richtlinien 2002/70/EC 2002-07 ZfD</p>	<p>Determination of PCDD/PCDF and dioxin-like PCBs by GC/HRMS in food stuffs, raw materials for animal feeding stuffs inclusive food stuffs for fish and domestic animals</p>
<p>EPA 1613 1990-04 ZfD</p>	<p>Tetra-through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS</p>
<p>EPA 8290 1992-04 ZfD</p>	<p>Determination of Organic Analytes; Gas Chromatographic Mass Spectroscopic Method; Analysis of Polychlorinated Dibenzodioxins and polychlorinated Dibenzofurans</p>
<p>EPA Protocol 560/1987-05/007 ZfD</p>	<p>Determination of Polybrominated Dibenzop-Dioxins and Polybrominated Dibenzofurans</p>
<p>ISO 18073 2004-04 ZfD</p>	<p>Water Quality - Determination of tetra- to octa-chlorinated dioxins</p>

VDI 3498 Blatt 1 2002-07 ZfD (MI)	Measurement of interior room air; measurement of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans; procedure with large filter (without sampling)
VDI 3498 Blatt 2 2002-07 ZfD (MI)	Measurement of interior room air; measurement of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans; procedure with small filter (without sampling)
VDI 3499 Blatt 1 2003-07 ZfD (A), (B), (MB), (MI)	Measurement of emissions; measurement of residuals; measurement of polychlorinated dibenzodioxins and -furans; dilution method determination in filter dust, boiler ash, and slags (without sampling after 5.3) (Variation: Extraction with hydrochloric acid/toluene)
VDI 3499 Blatt 2 2004-02 ZfD	Measurement of emissions; measurement of polychlorinated dibenzodioxins (PCDD) and dibenzofurans (PCDF); Filter/cooler method (without sampling)
VDI 3499 Blatt 3 2004-02 ZfD	Measurement of emissions; measurement of polychlorinated dibenzo-p-dioxins and dibenzofurans; Cooled suction tube (without sampling)

13 Airborne substances and other gases; Maintenance of air quality

B1

Identification/Area: A Inorganic gases - Determination of the emissions					
Compounds	Guideline Title	CEM	SRM	QM-Document	Remark
SO ₂	Stationary source emissions - Sampling for the automated determination of gas emission concentrations for permanently-installed monitoring systems	ISO FDIS 10396 2006-10		SOP M 723	
SO ₂	Stationary source emissions - Determination of mass concentration of sulfur dioxide by ion chromatography method		DIN ISO 11632 2001-05	SOP M 982 (PN) SOP M 795 (A)	
NO _x	Measurement of gaseous emissions - Automatic measurement systems for single measurements of nitrogen monoxide and nitrogen dioxide	DIN 33962 1997-03		SOP M 725	
NO _x	Gaseous emission measurement - Determination of the total of nitrogen monoxide and nitrogen dioxide, Ion chromatography method		VDI 2456 2004-11	SOP M 726 (PN) SOP M 795 (A)	
HCl	Stationary source emissions - Manual method of determination of HCl Part 1: Sampling of gases Part 2: Gaseous compounds absorption Part 3: Analytic Determination by Ion chromatography		DIN EN 1911-1 1911-2 (1998-07) Inhouse method	SOP M 322 (PN) SOP M 795 (A)	Analysis DIN EN 1911-3 and DIN EN ISO 10304-1
HF	Gaseous emission measurement - Measurement of gaseous fluorine compounds, Absorption method		VDI 2470 Blatt 1 1975-10	SOP M 727 (PN) SOP M 059 (A)	

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CO	Stationary source emissions - Determination of the mass concentration of carbon monoxide (CO) - Reference method: Non-dispersive infrared spectrometry	DIN EN 15058 2006-09	DIN EN 15058 2006-09	SOP M 728	
Chlorine	Gaseous emission measurement - Measurement of chlorine Methyl orange method		VDI 3488 Blatt 1 1979-12	SOP M 774 (PN) SOP M 465 (A)	

(PN) - Sampling

(A) - Analysis

Identification/Area: D <u>Dust, dust components and chemical compounds adsorbed to dust- Determination of the emissions</u>					
	Guideline Title	CEM	SRM	QM-Document	Remark
Dust Filter head instrument	Measurement of particles; dust measurement in flowing gases; gravimetric determination of the dust load; Filter head instruments (4 m³/h, 12 m³/h)		VDI 2066 Blatt 2 2001-06	SOP M 729	
Dust Planfilter	Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method		DIN EN 13284-1 2002-04	SOP M 729	
Metals/Metalloids particulate and filter-passing	Stationary source emissions - Determination of the total emission of As, Cd, Cr, Co, Cu, Mn, Ni, Pb, Sb, Tl and V		DIN EN 14385 2004-05	SOP M 730 (PN) SOP M 060 (A) SOP M 796 (A)	
Metals/Metalloids particulate and filter-passing (other Metals in addition to above)	Determination of total emission of metals, metalloids, and their compounds - Manual measurement in flowing, emitted gases - Sampling system for particulate and filter-passing matter		VDI 3868 Blatt 1 2001-06	SOP M 730 (PN) SOP M 797 (A)	
Hg	Air quality - Stationary source emissions - Manual method of determination of the concentration of total mercury		DIN EN 13211 2001-06 and corrigenda 2005-06	SOP M 733 (PN) SOP M 496 (A)	
PAH	Stationary source emissions - Determinations of gas and particle-phase polycyclic aromatic hydrocarbons (PAH) – GC/MS-Method		ISO 11338 Part 1,2	SOP M 735 (PN) SOP M 787 (A)	

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BGI-505.23 1992-05 TST	Method for determination of N-Nitrosamines
BGI-505.25 1989-07 TST	Method for determination of benzo(a)pyren and other polycyclic aromatic hydrocarbons
BGI-505.36 TST	Method for determination of N-Nitrosodiethanolamine
BGI-505.5 1983-12 TST	Method for determination of chromium (VI)
BIA 9420, TRBA 405 2001-01 B1 (P), B2 (A)	Process for determining molds in workplace air
BIA Methode Nr. 6015 B1 (P)	Sampling from personnel for determination of respirable dust and hazardous substances to be determined in respirable air in workplace air
BIA Methode Nr. 6015 1995-09 TST	Determination of Cd, Cu, Cr, Ni, Pb, Zn; digestion to analysis of metalliferous dusts
BIA Methode Nr. 6272 B1 (P)	Sampling for determination of polycyclic aromatic hydrocarbons in respirable dust in workplace air
BIA Methode Nr. 6640 1992-04 TST	Determination of hydrogen chloride and chlorides
BIA Methode Nr. 7490 B1 (P)	Sampling and determination of dust that reach the alveoli in workplace air (personnel measurement)
BIA Methode Nr. 7512 2000-03 TST	Determination of hydrogenfluoride and fluorides
BIA Methode Nr. 7750 1997-11 TST	Cooling lubricants
BIA Methode Nr. 8000 1992-09 TST	Determination of mineral oils (vapour and aerosols)
Hausverfahren SOP M 213 1998-05 DD	GC-MS-Screening of volatile organic compounds
Hausverfahren SOP M 588 2004-02 DD	Determination of microbiological volatile organic compounds (MVOC) after solvent desorption by GC/MS
Hausverfahren SOP M 692 2004-02 DD	Determination of microbiological volatile organic compounds (MVOC) after thermal desorption by GC/MS

Hausverfahren SOP M 697 2004-01 DD	Determination of the source of volatile organic compounds; simplified emission test chamber procedure
Hausverfahren SOP M 667 2003-12 B2	Microbiological examination of gasoline samples from aircraft tanks with the MicrobMonitor3 test kit
NIOSH 1003 1994-08 B1 (P)	Halogenated hydrocarbons
NIOSH 1300 1994-08 B1 (P), TST	Ketones; acetone, cyclohexanone, diisobutyl ketone, 2-hexanone, methylisobutyl ketone, 2-pentanone [gas chromatographic determination of ketones]
NIOSH 1400 1994-08 B1 (P), TST	Alcohol I; tert-butyl alcohol, ethanol, isopropyl alcohol [gas chromatographic determination of alcohols (Alcohols I)]
NIOSH 1401 1994-08 B1 (P), TST	Alcohol II; n-butyl alcohol, sec-butyl alcohol, isopropyl alcohol, n-propyl alcohol [gas chromatographic determination of alcohols]
NIOSH 1402 – 1403 1994-08 B1 (P)	Alcohols III - IV
NIOSH 1450 1994-08 B1 (P)	Ester I
NIOSH 1500 1994-08 B1 (P), TST	Hydrocarbons, BP 36 - 126 °C; Benzene, Cyclohexane, Cyclo- hexene, n-Heptane, n-Hexane, Methylcylphexane, n-Octane, n-Pentane, Toluene [Determination of hydrocarbons (36 - 126 °C) by gas chromatographic]
NIOSH 1614 Version 2 1994-08 TST	Ethylenoxid
NIOSH 5503 1994-08 DD	Polychlorinated biphenyls
NIOSH 7300 Version 2 1994-08 TST	Elements with ICP-AES

14.1 Interior room air

ASTM D 4861 2000-01 DD	Standard Practice for Sampling and Selection of analytical technique for pesticides and polychlorinated Biphenyls in air
DIN EN ISO 16017-1 2001-10 B1 (P), DD (A)	Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography - Part 1: Pumped sampling

DIN ISO 16000-3 2002-08 B1 (P), DD (A)	Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds; Active sampling method
Hausverfahren SOP M 668 2003-12 B2	Microbiological examination of material samples for molds
ISO/FDIS 16000-6 2004-12 DD	Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS/FID
VDI 4301 Blatt 3 2003-06 DD	Measurement of indoor air pollution - Measurement pentacloro-phenol (PCP) and gamma-hexachlorocyclohexane (lindane) - GC/ECD method

15 Pollutants in indoor air

BIA Methode 9420 2001-08 TST	Process for determining molds in workplace air
TRBA 405 2001-05	
BIA Methode 9430 2004-01 TST	Process for determining the total number of microorganisms in workplace air
VDI 4300 Blatt 1 1995-12 B1	General aspects of measurement strategy
VDI 4300 Blatt 6 2000-12 B1	Measurement of interior air contaminants; measurement strategy for volatile organic compounds (VOC)

16 Physical and physical-chemical investigations of asbestos, asbestos-containing samples and fibrous particles

BGI 505.46 (ZH 1/120.46) 1991-01 DD, DO, M, B1	Process for separate determination of asbestos fibers and other inorganic fibers that can reach the lungs, scanning electron microscopic procedure (after Chapter 4)
Hausverfahren SOP M 327 1999-08 DD, DO, M, B1	Detection of asbestos on dust adhesive [tape] samples (contact samples) using SEM/EDX
Hausverfahren SOP M 360 1999-02 DD, M, B1	Determination of concentration of asbestos fibers in water samples and in aqueous solutions using transmission electron microscopy
Hausverfahren SOP M 361 1999-02 DD, M, B1	Determination of concentration of asbestos fibers in parenterals and in primary packaging materials for parenterals using transmission electron microscopy (TEM)
NF X 43-050 1996-01 DD, M, B1	Air quality; Determination of the concentration of asbestos fibers by transmission electron microscopy

VDI 3492 2002-12 DD, DO, M, B1	Indoor air measurement - Ambient air measurement - Measurement of inorganic fibrous particles; Scanning electron microscopy method
VDI 3492 Blatt 1 1991-08 DD, M, B1	Measurement of inorganic fibrous particles in ambient air; scanning electron microscopy method
VDI 3866 Blatt 5 2003-05 DD, DO, M, B1	Determination of asbestos in technical products - Scanning electron microscopy method

17 Mechanical-technological tests

DIN 50190-2 1979-03 DD	Hardness depth of heat-treated parts; determination of the effective depth of hardening after flame or induction hardening
DIN 50190-3 1979-03 DD	Hardness depth of heat-treated parts; determination of the effective depth of hardening after nitriding
DIN 50190-4 1999-09 DD	Hardness depth of heat-treated parts - Part 4: Determination of the fusion hardening depth and the fusion depth
DIN 50602 1985-09 DD	Microscopic examination of special steels using standard diagrams to assess the content of non-metallic inclusions
DIN EN ISO 2639 2003-04 DD	Steels - Determination and verification of the depth of carburized and hardened cases
DIN EN ISO 643 2003-09 DD	Steels - Micrographic determination of the apparent grain size
DIN EN ISO 6507-1 2004-07 DD	Vickers hardness test - Part 1: Test method
Hausverfahren SOP M 716 2004-03 DD	Determination of layer thickness using metallography and light Microscopy

18 Physical and chemical tests and analyses of media, materials and products

DIN EN 1464 1995-01 DO	Adhesives - Determination of peel resistance of high-strength adhesive bonds - Floating roller method
DIN EN 1465 1995-01 DO	Adhesives - Determination of tensile lap-shear strength of rigid-to-rigid bonded assemblies

Hausverfahren SOP M 133 1999-07 DO	Quantitative structural analysis of metallographic slides by light and scanning electron micrography and image evaluation (also applicable: SOP M 134 and SOP M 502)
Hausverfahren SOP M 135 2003-12 DO	Quantitative particle analysis by scanning electron microscopy (SEM) and energy-dispersive X-ray microanalysis (EDS) (also applicable: SOP M 502)
Hausverfahren SOP M 137 1999-06 DO	Performance of peel tests for testing textile closures with the tensile test machine ZWICKI 1120
Hausverfahren SOP M 240 2004-02 DO	Sample preparation, testing and characterisation of the composition of surfaces of any material samples using time-of-flight secondary ion mass spectrometry (TOF-SIMS) (also applicable: SOP M 242)
Hausverfahren SOP M 328 2003-12 DO	Imaging, analysis, and fractographic evaluation of material fractures using light and scanning-electron micrographic procedures (SEM/EDX or ESEM/EDX) (also applicable: SOIP M 134 and SOP M 502)
Hausverfahren SOP M 330 1999-07 DO	Determination of length-weighted diameter distribution of KMF products; scanning electron microscopic procedure (SEM) (also applicable: SOP M 502)
Hausverfahren SOP M 331 1999-07 DO	Length and angle measurement in the micro range; scanning electron microscopic (SEM) procedure (also applicable: SOP M 134 and SOP M 502)
Hausverfahren SOP M 332 2002-05 DO	Determination of micro-hardness of metallic and non-metallic materials (also applicable: SOP M 134)
Hausverfahren SOP M 333 2001-10 DO	Determination of thickness of films, coatings and the like with incremental fine indicators and using metallography (light or scanning electronmicroscopy) (also applicable: SOP M 134 and SOP M 502)
Hausverfahren SOP M 383 2004-03 DO	Determination of the adhesive strength of adhesives, adhesive tapes, linings and acoustic materials
Hausverfahren SOP M 446 2003-12 DO	Imaging of sample surfaces, slides and replicas using secondary and back-scattered electrons and analysis using SEM/EDX or ESEM/EDX (also applicable: SOP M 134 and SOP M 502)

18.1 Additional valid documents

Hausverfahren SOP M 134 2003-12 DO	Preparation of metallographic slides for light and scanning electron micrographic analyses
Hausverfahren SOP M 242 1998-04 DO	Taking samples for surface analysis

Hausverfahren SOP M 502 2003-12 DD, DO	General measuring methods for scanning electron microscopy (SEM/ESEM) and energy-dispersive X-ray microanalysis (EDX)
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18.2 Examination by X-ray diffractometry and scanning electron microscopy

Hausverfahren SOP M 363 1999-06 DD	Qualitative and quantitative X-ray diffractometry of inorganic and organic substances
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Hausverfahren SOP M 446 2003-12 DD	Imaging of sample surfaces, slides and replicas using secondary and back-scattered electrons and analysis using SEM/EDX or ESEM/EDX
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Hausverfahren SOP M 502 2004-03 DD	General measuring methods for scanning electron microscopy (SEM/ESEM) and energy-dispersive X-ray microanalysis (EDX)
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18.2.1 Additional valid documents

Hausverfahren SOP M 134 2004-03 DD	Preparation of metallographic slides for light and scanning electron micrographic analyses (REM/EDX or ESEM/EDX)
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18.3 Ultra-trace examinations of metals and anions on/in wafers (including accompanying procedures)

Hausverfahren SOP K 252 2005-02 DD	Determination of metals in wafer layers using HF-PEM/ICP-MS
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Hausverfahren SOP K 253 2005-02 DD	Determination of metals on the wafer surface using HF-PEM/ICP-MS
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Hausverfahren SOP K 254 2005-02 DD	Determination of metals on the wafer surface using VPD/ICP-MS
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Hausverfahren SOP K 255 2005-02 DD	Determination of anions on silicon discs by ion chromatography
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Hausverfahren SOP K 257 2005-02 DD	Particle determination on silicon discs
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Hausverfahren SOP K 258 2005-02 DD	Determination of TOC [total organic carbon, total organic compounds] in H ₂ O ₂
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Hausverfahren SOP K 259 2005-02 DD	Determination of water content by the Karl Fischer method
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Hausverfahren SOP K 260 2005-02 DD	Titer determination of chemicals
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19 Determination of organic emissions from vehicle interior */**

19.1 Determination of organic emissions **

D45 1727/--D 2002-00 HE	Interior trim materials and passenger compartment parts fogging
D45 1727/--D 2002-00 HE	Interior Trim Materials and Passenger Compartment Parts Fogging (Normalisation Renault-Automobiles)
DIN 75201A 1992-09 HE	Determination of the windscreen fogging characteristics of trim materials in motor vehicles
DIN 75201B 1992-09 HE	Determination of the windscreen fogging characteristics of trim materials in motor vehicles
E PPV 4050 2003-07 HE	Motor vehicle components; Determination of volatile, organic emissions; Emission in a SHED-chamber
GME 60326 1996-01	Volatile organic components (Fogging-Effect) of materials of car body equipment
GME 8081 2004-04 HE	Static Headspace gas chromatography/mass spectrometry in interior trim materials
GS 97014-2 2000-11 HE	Determination of emissions in a SHED-chamber
GS 97014-3 2002-10 HE	Determination of emissions in a testing chamber under air renewal
PB VWL 709 2001-01 HE	Determination of volatile organic substances (VOC) and fogging emissions (FOG) with thermodesorption (TDS), gaschromatography (GC) and mass-selective detection (MSD); from vehicle interior assessories
STD 1027, 2711 1994-08 HE	Fogging, Organic-Materials (Volvo-Guideline)
STD 1027, 2714 1998-01 HE	Volvo Corporate Standard; Determination of organic emissions from non metallic materials in vehicle interiors
STD 1082 1994-10 HE	Fogging, Organic-Materials (SAAB-Guideline)
TS M 0503G 1997-07 HE	Fogging test method for non-metallic materials

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TSM 0509G 1997-07 HE	Analysis of the emission of volatile substances for materials by Thermo Desorption
VCS 1027, 2719 2002-02 HE	Fogging, Organic-Materials (Volvo-Guideline)
VDA 276-1 2000-08 HE	Determination of organic substances as emitted from automotive interior products using a 1 m ³ test cabinet - Part 1: Standard-Emission
VDA 276-2 2000-08 HE	Determination of organic substances as emitted from automotive interior products using a 1 m ³ test cabinet - Part 2: Determination of the release of formaldehyde, ammonia and phenols; Measurement by method of steady state concentration
VDA 277 1995-01 HE	Non-metallic materials of vehicle interior; Determination of emissions of organic compounds (equal to: PV 3341)
VDA 278 2002-09 HE	Determination of volatile organic substances (VOC) and fogging emissions (FOG) with thermodesorption (TDS), gaschromatography (GC) and mass-selective detection (MSD); (equal to CPA 480 of BMW)

19.2 Chemical and organoleptic analyses */**

DBL 5555 HE	Determination of water content in synthetic material
DIN CEN/TS 14494 2003-08 HE	Leather; Chemical tests; Determination of pentachlorophenol content
DIN EN 13130-4 2004-08 HE	Materials and articles in contact with foodstuffs; Plastics substances subject to limitation; Part 4: Determination of 1,3-butadiene in plastics (Deviation: MS instead FID)
DIN EN ISO 1172 1998-12 HE	Textile-glass-reinforced plastics - Prepregs, moulding compounds and laminates - Determination of the textile-glass and mineral-filler content; calcination methods
E DIN EN ISO 17226-1 2006-10 HE	Testing of leather; Determination of formaldehyde content in leather by high performance liquid chromatography (HPLC)
GME 60276 2000-08 HE	Determination of odour characteristics of materials in motor vehicles
STD 1060, GME 60276 1994-10 HE	Determination of odor behaviour of materials of car body equipment
TSM 0505G 2002-07 HE	Test Method for smell of non-metallic materials

20 Tests in the areas of biodegradation, ecotoxicology and environmental fate**20.1 Biological Degradation**

CEC L-33-A-93 1994-01 TST	Biodegradability of two stroke cycle outboard engine oils in water
DIN 51828-2 1999-12 TST	Determination of the rapid biodegradability - Part 2: Infrared spectrometric method
DIN EN 1899-1 1998-05 TST	Water quality; determination of the biochemical oxygen demand in <i>n</i> days - Part 1: Dilution and seeding method after addition of allylthiourea
DIN EN 1899-2 (H 52) 1998-05 TST	Water quality - Determination of oxygen depletion in <i>n</i> days (BOD _n)
DIN EN ISO 9408 1999-12 TST	Determination of total aerobic biological degradation of organic compounds in aqueous matrix with the determination of the oxygen demand in a closed r
DIN EN ISO 9888 1999-11 TST	Determination of aerobic biological degradation of organic compounds in aqueous matrix; static test (Zahn-Wellens method)
EPA CG-2050 1992-08 TST	Anaerobic Biodegradation
ISO 10708 1997-02 TST	Water quality; Determination of the total anaerobic biological degradation of organic compounds in an aqueous matrix; determination of biochemical oxygen demand by the closed bottle test in two phases
LAWA Merkblatt P-1 1989-06 TST	Chemical oxygen demand (COD) in waste water
LAWA Merkblatt P-2 1989-06 TST	Biochemical oxygen demand in 5 days (BOD) in waste water according to dilution principle
OECD Guideline 301 A 1992-01 TST	Degradation and Accumulation; Ready Biodegradability; DOC Die-Away Test
OECD Guideline 301 B 1981-05 TST	Degradation and Accumulation; Ready Biodegradability; Modified Sturm Test
OECD Guideline 301 C 1992-01 TST	Degradation and Accumulation; Ready Biodegradability
OECD Guideline 301 D 1981-05 TST	Degradation and Accumulation; Ready Biodegradability; Closed Bottle Test

OECD Guideline 301 E 1981-05 TST	Degradation and Accumulation; Ready Biodegradability; Modified OECD Screening Test
OECD Guideline 301 F 1992-01 TST	Degradation and Accumulation; Ready Biodegradability; Manimetric Respirometry Test
OECD Guideline 302 A 1981-05 TST	Degradation and Accumulation; Inherent Biodegradability; Modified SCAS Test
OECD Guideline 302 B 1981-05 TST	Degradation and Accumulation; Inherent Biodegradability; Modified Zahn-Wellens-Test
OECD Guideline 302 C 1981-05 TST	Degradation and Accumulation; Inherent Biodegradability; Modified MITI Test
OECD Guideline 303 A 1981-05 TST	Degradation and Accumulation; Simulation Test; Aerobic Sewage Treatment; Coupled Units Test

20.2 Ecotoxicology

BBA VI 1-1 1990-03 TST	Testing of the effect of pestizides to the activity of soil micro flora
DEV L 3 1971-01 TST	Determination of the toxicity of waste waters and waste water ingredients
DIN 38412-L 11 1982-10 TST	Determination of the effect of substances in water on micro-crustaceans (daphnia-shorttime-test)
DIN 38412-L 16 1985-12 TST (MW)	Bio-assays; determination of chlorophyll a in surface water
DIN 38412-L 26 1994-05 TST	Bio-assays ; Surfactant biodegradation and elimination test for simulation of municipal waste water treatment plants
DIN 38412-L 27 1992-11 TST	Determination of the inhibitory effect of waste water on the oxygen consumption of Pseudomonas putida
DIN 38412-L 30 1989-03 TST (MW)	Determination of the non-acute-poisonous effect of waste water to Daphnia by dilution limits

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DIN 38412-L 31 1989-03 TST (MW)	Determination of the non-acute-poisonous effect of waste water to fish by dilution limits
DIN 38412-L 33 1991-03 TST (MW)	Determination of the non-poisonous effect of waste water to green algae (Scenedesmus chlorophyll fluorescence test) by dilution limits
DIN 38415-6 2003-08 TST	Suborganismic tests; Part 6: toxicity against fish
DIN EN ISO 10712 1996-02 TST	Pseudomonas putida growth inhibition test (Pseudomonas cell growth test)
DIN EN ISO 11348-3 (L 34) 1999-04 B2, TST (MW)	Determination of the inhibitory effect of waste water on the light emission of Photobacterium phosphoreum - luminescent bacteria waste water test using conserved bacteria
DIN EN ISO 9509 1995-04 TST	Toxicity test for assessing the inhibition of nitrification of activated sludge microorganisms
Hausverfahren SOP Ö 024 2002-08 TST	Determination of the microbiological biomass in soils and sediments
OECD Guideline 201 1984-01 TST	Effects on Biotic Systems; Alga, Growth Inhibition Test
OECD Guideline 202 1984-01 TST	Effects on Biotic Systems; Daphnia spec., Acute Immobilisation Test and Reproduction Test
OECD Guideline 203 1992-07 TST	Effects on Biotic Systems; Fish, Acute Toxicity Test
OECD Guideline 207 1984-04 TST	Earthworm, Acute Toxicity Test
OECD Guideline 208 1981-05 TST	Effects on Biotic Systems; Terrestrial Plants Growth Test
OECD Guideline 209 1981-05 TST	Effects on Biotic Systems; Activated Sludge, Respiration Inhibition

20.3 Biomolecular methods

BIO-RAD Nachweisverfahren gemäß Handbuch 2002-05 TST	Detection of Bovine Spongiform Encephalopathy (BSE) with the PLATELIA BSE purification and detection kit (Bio Rad)
BIO-RAD Nachweisverfahren gemäß Handbuch 2003-02 TST	Detection of transmissible spongiform encephalopathy (TSE) with the TeSeE purification and detection kit (Bio Rad)
Hausverfahren SOP M 457 2000-05 TST	Procedure for molecular-biological detection of Salmonella using PCR with subsequent DNA hybridization technique after enrichment
Hausverfahren SOP M 458 2000-05 TST	Procedure for molecular-biological detection of Listeria using PCR with subsequent DNA hybridization technique after enrichment
Hausverfahren SOP M 459 2000-05 TST	Determination of the protein concentration in aqueous media by the Lowry method
Hausverfahren SOP M 462 1999-09 TST	Determination of animal species using the immunoenzymatic detection procedure
Hausverfahren SOP M 460 2002-05 TST	Determination of mycotoxins by immunoenzymatic detection procedures

21 Tests in the field of food **

21.1 Microbiological procedures Cultural procedures (aerobic and anaerobic) Pour-plate, surface, titer, MPN, enrichment and agar diffusion procedures

Hausverfahren SOP M 185 2002-12 SW, TST	Microbiological examination of fruit preparations
Hausverfahren SOP M 568 2002-12 SW	Microbiological analysis of dietary supplements
Hausverfahren SOP M 610 2003-03 SW	Microbiological examination for the minimum storage time of fish

21.1.1 Sampling and Pre-treatment

Hausverfahren SOP M 108 SW, TST 2000-06	Sampling of water used in food and cosmetic production
Hausverfahren SOP M 109 2000-06 SW, TST	Sampling non-packaged ice cream

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Hausverfahren SOP M 113 2000-06 SW, TST	Sampling process water from air-conditioning systems and air humidifiers for microbiological examinations
Hausverfahren SOP M 114 2000-06 SW, TST	Taking water samples for examination for Legionella pneumophila
Hausverfahren SOP M 116 2000-06 SW, TST	Sampling of food samples
Hausverfahren SOP M 406 2004-01 B2, TST	Pre-treatment of food to the microbiological analysis

21.1.2 Detection of Bacillus cereus

ASU L 00.00-25 1992-12 B2, TST	Determination of presumed Bacillus cereus in foods; colony count procedure
ASU L 01.00-72 2000-07 TST	Determination of presumed Bacillus cerus in milk and milk products; Part 1: colony count procedure, 37 °C (equivalent to DIN 1019801 : 1998-09)
Hausverfahren SOP M 407 2004-01 B2, TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 10

21.1.3 Detection of sulfite-reducing Clostridia

ASU L 06.00-39 1994-05 TST	Determination of Escherichia coli in meats and meat products; Visual fluorescence colony-counting procedure using the membrane filter - spread-plate procedure (reference procedure, equivalent to DIN 10110 : 1994-08)
Hausverfahren SOP M 407 2004-01 TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 13
ISO 15213 2003-05 TST	Horizontal procedure for counting of anaerobic sulfite-reducing bacteria

21.1.4 Detection of Clostridium perfringens

ASU L 00.00-57 2000-07 TST	Procedure for counting Clostridium perfringens in foods; colony count procedure (equivalent to DIN EN 1340-1:1999-06)
ASU L 06.00-20 1984-05 B2	Measurement of pH in meat and meat products
E DIN EN ISO 7937 2002-06 TST	Horizontal procedure for counting Clostridium perfringens; colony count procedure

Hausverfahren SOP M 407 2004-01 TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 12
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21.1.5 Detection of Enterobacteriaceae

ASU L 05.00-5 1990-06 B2, TST	Determination of glucose, fructose and sucrose in eggs and egg products; enzymatic process
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ASU L 06.00-24 1987-11 B2, TST	Determination of Clostridium perfringens; pour-place procedure (reference procedure)
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Hausverfahren SOP M 407 2004-01 TST, B2	Qualitative and quantitative methods for microbiological examination of foods, Appendix 15
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ISO 7402 1993-09 TST	General guidelines for counting Enterobacteriaceae without reactivation; MPN procedure and colony counting
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21.1.6 Detection of Enterococcus faecalis / Enterococcus faecium

ASU L 06.00-32 1992-06 TST	Determination of Lactobacilli in meats and meat products; spread-place procedure (reference procedure)
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DIN EN 10106 1991-09 TST	Microbiological examination of meat and meat products; determination of Enterococcus faecalis and Enterococcus faecium; spread-plate procedure (reference procedure)
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Hausverfahren SOP M 407 2004-01 TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 14
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21.1.7 Detection of Escherichia coli

ASU L 01.00-25 1997-09 B2, TST	Determination of Escherichia coli in milk, milk products, butter, cheese and ice cream; procedure with liquid nutrient medium
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ASU L 01.00-54 1992-12 B2, TST	Determination of Escherichia coli in milk and milk products; visual fluorescence procedure with parallel determination of coliform microorganisms
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ASU L 06.00-36 1996-02 TST	Determination of aerobic lactic acid bacteria in meats and meat products; spread-plate procedure (reference procedure)
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Hausverfahren SOP M 407 2004-01 B2, TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 17
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ISO 11866-1 1997-02 B2	Milk and milk products; Enumeration of presumptive Escherichia coli; Part 1: Most probable number technique
ISO 11866-2 1997-02 B2	Milk and milk products; Enumeration of presumptive Escherichia coli; Part 2: Most probable number technique using 4-methylumbelliferyl- β -D-glucuronide (MUG)
ISO 11866-3 1997-03 B2	Milk and milk products; Enumeration of presumptive Escherichia coli; Part 3: Colony-count technique at 44 °C using membranes

21.1.8 Detection of Escherichia coli O157

ASU L 00.00-68 2002-05 TST	Horizontal procedure for detecting Escherichia coli O157 in foods
ASU L 06.00-44 1998-09 TST	Counting Pseudomonas spp. In meats and meat products
DIN EN ISO 16654 2001-11 B2, TST	Horizontal process for detection of Escherichia coli O157
Hausverfahren SOP M 407 B2, TST 2004-01	Qualitative and quantitative methods for microbiological examination of foods, Appendix 18

21.1.9 Detection of yeasts and moulds

ASU L 01.00-37 1991-12 B2, TST	Determination of the numbers of yeasts and molds in milk and milk products; reference procedure
Hausverfahren SOP M 407 B2, TST 2004-01	Qualitative and quantitative methods for microbiological examination of foods, Appendix 8
ISO 7954 1987-11 B2, TST	General introduction to counting of yeasts and molds; colony counting at 25 °C

21.1.10 Detection of inhibitors

ASU L 01.00-6 1997-01 TST	Detection of inhibitors in milk; agar diffusion test (platelet test)
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21.1.11 Detection of coliform bacterial

ASU L 01.00-2 1991-12 (mit Berichtigung 2002-12) B2, TST	Determination of coliform microorganisms in milk, milk products, butter, cheese, and ice cream; procedure with liquid nutrient medium
ASU L 01.00-3 1987-03 TST, B2	Determination of coliform microorganisms in milk, milk products, butter, cheese, and ice cream; procedure with solid nutrient medium
Hausverfahren SOP M 407 2004-01 B2, TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 16
ISO 4831 1991-03 B2, TST	General guideline for counting coliform microorganisms; most-probable-number procedure
ISO 4832 1991-03 B2, TST	General guideline for counting coliform microorganisms; colony counting

21.1.12 Detection of bacterial count

ASU L 01.00-5 1983-11	Determination of the number of microorganisms in milk and milk products; reference procedure
ASU L 01.00-57 1995-01 TST	Determination of the number of microorganisms in milk and milk products; spread-plate procedure
ASU L 06.00-18 1984-05 TST	Preparation of meats and meat products for chemical examination
ASU L 42.00-2 1987-03 B2, TST	Determination of the microbial count in ice cream; pour plate
ASU L 42.00-3 1987-03 B2, TST	Determination of the microbial count in ice cream; spread plate procedure
DIN EN ISO 4833 2003-06 B2, TST	Horizontal process for counting microorganisms; colony count procedure at 30 °C
Hausverfahren SOP M 407 2004-01 B2, TST	Qualitative and quantitative methods for microbiological examination of foods, Appendices 1 and 2
ISO 6391 1997-12 B2	Meat and meat products; Enumeration of escherichia coli; Colony-count technique at 44°C using membranes

DIN ISO 13720 1998-05 TST	Meat and meat products; counting of Pseudomonas species
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Hausverfahren SOP M 407 B2, TST 2004-01	Qualitative and quantitative methods for microbiological examination of foods, Appendix 7
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21.1.17 Detection of salmonella

ASU L 00.00-20 1998-09 B2, TST	Horizontal process for detection of Salmonella (equivalent to DIN EN 12824:1998-02)
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ASU L 00.00-20a 1999-11 B2, TST	Final confirmation of Salmonella
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DIN EN ISO 6579 2003-03 B2, TST	Horizontal process to detect Salmonella species
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Hausverfahren SOP M 407 2004-01 B2, TST	Qualitative and quantitative methods for microbiological examination of foods, Appendix 19
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21.1.18 Detection of coagulase-positive Staphylococci

ASU L 00.00-55 2000-07 TST	Procedure for counting coagulase-positive Staphylococci (Staphylococcus aureus and other species) in foods; Part 1: Procedure with Baird-Parker agar
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ASU L 01.00-23 1987-03 B2	Detection of coagulase-positive Staphylococci, titer procedure
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ASU L 02.07-2 1983-03 B2	Determination of coagulase-positive Staphylococci, procedure with selective enrichment
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DIN EN ISO 6888-1 2003-12 B2, TST	Procedure for counting coagulase-positive Staphylococci (Staphylococcus aureus and other species) in foods. Part 1: Procedure using Baird-Parker agar
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DIN EN ISO 6888-2 2003-12 B2	Procedure for counting coagulase-positive Staphylococci; Part 2: Procedure with rabbit plasma/fibrinogen agar
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Hausverfahren SOP M 407 B2, TST 2004-01	Qualitative and quantitative methods for microbiological examination of foods, Appendix 11
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21.1.19 Detection of starter cultures

ASU L 07.00-52 B2, TST 1997-01	Identification of <i>Staphylococcus carnosus</i> , <i>Staphylococcus xylosum</i> and <i>Micrococcus</i> variants in meat products and sausages (equivalent to EIN 10111:1996-10)
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21.1.20 Additional valid documents

Hausverfahren SOP M 407 TST 2004-01	Qualitative and quantitative methods for microbiological examination of foods
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21.2 Chemical procedures

21.2.1 General

ASU L 00.00-16 2002-12 B2	Additional individual methods to detect and determine pesticide residues in foods, DFG Method 378: Determination of Carbendazim (modification: including determination of Thiabendazol; determination by GC/MS instead of GC-ECD)
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ASU L 00.00-17 1987-11 TST	Determination of nitrosamines in food
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ASU L 00.00-18 1997-01 TST	Determination of total fibres in food
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ASU L 00.00-19/1 1993-08 TST	Determination of trace elements in foods, Part 1: Digestion under pressure
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ASU L 00.00-19/3 1993-08 TST	Determination of trace elements in foods, Part 3: Determination of lead, cadmium, chromium and molybdenum by atomic absorption spectrometry (AAS)
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ASU L 00.00-19/4 1996-02 TST	Determination of trace elements in foods, Part 4: Determination of mercury by atomic absorption spectrometry (AAS), Cold vapour method
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ASU L 00.00-19/5 2001-07 TST	Determination of trace elements in foods, Part 5: Determination of selenium by atomic absorption spectrometry (AAS)
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ASU L 00.00-19/6 2001-07 TST	Determination of trace elements in foods, Part 6: Determination of arsenic by atomic absorption spectrometry (AAS)
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ASU L 00.00-34 1999-11 B2	Modular multimethod for determining pesticide residues in foods (new expanded version of the DFG Method S 19)
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ASU L 00.00-36 1998-09 B2	Gas chromatographic determination of total inorganic bromide in foods after derivatization with propylene oxide (modification: inclusion of determination of total inorganic chloride; determination with GC/MS instead of GC-ECD)
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ASU L 00.00-46/1 1999-11 TST	Determination of sulfite in food (deviation: method will be analysed according to Reith Willems)
ASU L 00.00-49/3 2001-07 TST	Determination of dithiocarbamate and thiuram disulfide residues
ASU L 18.00-14 1994-05 TST	Determination of D-sorbitol in fine biscuits (Variation: extension to all foods)
ASU L 26.11.03-6 1983-05 TST	Determination of acid-insolubles (sand content) in tomato pulp (Variation: extension to all foods)
DFG Methode S15 TST	Determination of dithiocarbonate and thiuram disulfide fungicides in foods
DFG Methode S19 TST	Determination of organochloro pesticides and organo phosphorous pesticides in food
DFG-Methodensammlung Rückstandsanalytik von Pflanzenschutzmitteln, Stand 1991-01 11. Lieferung B2	DFG Method S 25: Detection and determination of methyl carbamate insecticides
DIN 38404-C 5 1984-01 TST	Determination of pH value
DIN EN 12014-2 1997-08 TST	Determination of nitrate and/or nitrite, Part 2: HPLC/IC procedure for determining nitrate in vegetables and vegetable products
DIN EN 12955 1999-09 B2	Determination of Aflatoxin B1 and the sum of Aflatoxins B1, B2, G1 and G2 in cereals, peeled fruits and related products; high-performance liquid chromatographic procedure with post-column derivatization and purification on an immunoaffinity column
DIN EN 14501 1999-01 B2	Determination of Aflatoxin M1: cleanup by immunoaffinity chromatography and determination by high-performance liquid chromatography (Extension: also for cheese and related milk products, modified for them)
Hausverfahren SOP M 175 1997-08 TST	Determination of sweeteners in beverages using HPLC
Hausverfahren SOP M 442 2003-12 TST	Determination of acrylamid in food samples by LC/MS/MS
Hausverfahren SOP M 507 2000-02 TST	Determination of L-ascorbic acid in foods and other sample materials

Hausverfahren SOP M 511 2004-01 TST	Photometric determination of iodine in foods
Hausverfahren SOP M 558 2002-07 B2	Detection and determination of Ochratoxin A in foods by HPLC with fluorescence detection, following clean-up on an immunoaffinity
Hausverfahren SOP M 559 2003-09 B2	Determination of pentachlorophenol in tea by isotopic dilution analysis
Hausverfahren SOP M 613 2004-03 B2	Determination of zearalenone in cereals and cereal products by HPLC with fluorescence detection
J. Lepschy GIT 3 S. 275 - 277 2000-01 B2	Detection of a mould toxin (deoxynivalenol) by HPLC and post-column derivatization
LUA Braunschweig Version 01 1995-02 TST	Determination of volatile nitrosamines in foods (especially baby foods)
U. Hagenauer-Hener et.al. Lebensmittelchemie 49 S. 54 - 56 1995-01 B2	Modified HPLC procedure for determination of patuline

21.2.2 Milk

ASU L 01.00-09 2002-05 TST	Determination of the fat content of milk: gravimetric procedure (Reference procedure; according to DIN EN ISO 1211)
ASU L 01.00-10/1 2002-12 TST	Determination of the nitrogen content of milk by the Kjeldahl method and calculation of the crude protein content
ASU L 01.00-17 1983-05 TST	Determination of the lactose and galactose contents in milk and milk products; enzymatic procedure (according to DIN 10344)
ASU L 01.00-26 1987-06 TST	Determination of the content of L- and D-lactic acid (L- and D-lactate) in milk and milk products; enzymatic procedure
Hausverfahren SOP M 293 1999-05 TST	Determination of the fat content of milk and milk products; Weibull procedure (according to DIN 10342), similar to ASU L 01.00-20 (Variation: digestion apparatus)

21.2.3 Milk products

ASU L 02.00-12
1986-05
TST Determination of the contents of sucrose and glucose in milk products and ice cream; enzymatic procedure (according to DIN 10326)

ASU L 02.00-16
1987-06
TST Determination of the contents of L- and D-lactic acid (L- and D-lactate) in milk products; enzymatic procedure

ASU L 02.00-9
1983-11
TST Determination of the content of lactose and galactose in milk products; enzymatic process

Hausverfahren SOP M 293
1999-05
TST Determination of the fat content of milk and milk products; Weibull procedure (according to DIN 10342), similar to ASU L 01.00-20 (Variation: digestion apparatus)

21.2.4 Butter

ASU L 04.00-13
1986-05
TST Determination of the pH-value in butter serum (nach DIN 10349)

ASU L 04.00-8
1992-06
TST Determination of the water content in butter (according to DIN 10317)

Hausverfahren SOP M 295
1998-11
TST Sensory testing of butter (according to DIN 10455), similar to ASU L 04.00-12 (Variation: two test persons)

21.2.5 Eggs

ASU L 05.00-10
1992-06
TST Bestimmung von Glucose, Fructose und Saccharose in Eiern und Eiprodukten; Enzymatisches Verfahren

21.2.6 Meat of warm-blooded animals

ASU L 06.00-1
1980-09
TST Determination of Enterobacteriaceae in eggs, egg products, mayonnaises, emulsified sauces and cold ready-made sauces; pourplate procedure

ASU L 06.00-2
1980-09
TST Determination of the aerobic microbial count at 30 °C in meat and meat products; spread and pour-plate procedure (reference procedure) after extraction

ASU L 06.00-3
1980-09
TST Determination of Enterobacteriaceae in meat; spread-plate procedure (reference procedure)

ASU L 06.00-4
1980-09
TST Determination of mesophilic sulfite-reducing Clostridia in meats and meat products; pour-plate procedure (reference procedure, equivalent to DIN 10103:1993-08)

ASU L 06.00-5 1980-09 TST	Detection of Escherichia coli 0157 in meats and meat products
ASU L 06.00-7 1989-12 TST	Determination of the crude protein content of meats and meat
ASU L 06.00-8 1980-09 TST	Determination of the hydroxyproline content of meats and meat products
ASU L 06.00-9 1992-12 TST	Determination of total phosphorus in meats and meat products
Hausverfahren SOP M 293 1999-05 TST	Determination of the fat content of milk products; Weibull procedure (according to DIN 10342), similar to ASU L 01.00-20 (Variation: digestion apparatus)

21.2.7 Meat products of warm-blooded animals

ASU L 07.00-1 1980-09 TST	Preparation of meat products for chemical examination
ASU L 07.00-13 1981-11 TST	Determination of citric acid (citrate) in meat products
ASU L 07.00-14 1981-11 TST	Determination of acetic acid (acetate) in meat products
ASU L 07.00-15 1981-11 TST	Determination of L- and D-lactic acid (L- and D-lactate) in meat products
ASU L 07.00-17 1981-11 TST	Determination of L-glutamic acid (L-glutamate) in meat products
ASU L 07.00-2 1980-09 TST	Measurement of pH in meat products
ASU L 07.00-21 1982-11 TST	Reductometric determination of total carbohydrates (starches) in meat products
ASU L 07.00-22 1983-05 TST	Determination of glucose in meat products
ASU L 07.00-23 1983-05 TST	Determination of lactose in meat products

ASU L 07.00-25 1983-05 TST	Determination of starches in meat products
ASU L 07.00-3 1980-09 TST	Determination of the dry weight of meat products
ASU L 07.00-4 1980-09 TST	Determination of ash in meat products
ASU L 07.00-5 1980-09 TST	Determination of sodium chloride in meat products
ASU L 07.00-7 1989-12 TST	Determination of the crude protein content of meat products
ASU L 07.00-8 1980-09 TST	Determination of the hydroxyproline content of meat products
ASU L 07.00-9 1992-12 TST	Determination of total phosphorus in meat products
Hausverfahren SOP M 293 1999-05 TST	Determination of the fat content of milk and milk products; Weibull procedure (according to DIN 10342), similar to ASU L 01.00-20 (Variation: digestion apparatus)
21.2.8 Sausage	
ASU L 08.00-1 1980-09 TST	Preparation of sausages for chemical examination
ASU L 08.00-10 1990-06 TST	Determination of the content of solubilized milk protein in sausages without added liver and/or cereals
ASU L 08.00-15 1981-11 TST	Determination of citric acid (citrate) in sausages
ASU L 08.00-16 1981-11 TST	Determination of acetic acid (acetate) in sausages
ASU L 08.00-17 1981-11 TST	Determination of L- and D-lactic acid (L- and D-lactate) in sausages
ASU L 08.00-19 1981-11 TST	Determination of L-glutamic acid (L-glutamate) in sausages

ASU L 08.00-2 1980-09 TST	Measurement of pH in sausages
ASU L 08.00-23 1983-05 TST	Determination of glucose in sausages
ASU L 08.00-3 1980-09 TST	Determination of the dry weight of sausages
ASU L 08.00-4 1980-09 TST	Determination of ash in sausages
ASU L 08.00-5 1980-09 TST	Determination of sodium chloride in sausages
ASU L 08.00-6 1980-09 TST	Determination of the total fat content of sausages
ASU L 08.00-7 1989-12 TST	Determination of the crude protein content of sausages
ASU L 08.00-8 1980-09 TST	Determination of the hydroxyproline content of sausages
ASU L 08.00-9 1992-12 TST	Determination of total phosphorus in sausages
21.2.9	Fish
ASU L 10.00-3 1988-12 TST	Determination of the content of volatile nitrogenous bases (TVB-N) in fish and fish products; reference procedure
21.2.10	Fats, Oils
ASU L 13.00-2 1983-05 TST	Determination of oxidized fatty acids insoluble in petroleum ether
ASU L 13.00-3 1997-01 TST	Determination of insoluble contaminants in fats and oils (petroleum ether method)
ASU L 13.00-4 1987-11 TST	Determination of the inorganic portion of the insoluble contaminants in fats and oils
ASU L 13.00-5 2000-07 B2, TST	Determination of the acid value in fats and oils

ASU L 13.00-6 1991-06 TST	Determination of the peroxide value in fats and oils (Wheeler procedure)
ASU L 13.05-1 1984-05 TST	Determination of the water content of margarines
ASU L 13.05-5 1984-05 TST	Determination of the pH of margarines
ASU L 13.05-6 1985-05 TST	Determination of total protein in margarines
ASU L 13.06-6 1985-05 TST	Determination of the total protein in reduced-fat margarines
ASU L 13.07.12-1 1997-09 TST	Determination of the content of polar ingredients
ASU L 13.07.12-2 1985-05 TST	Determination of the smoke point of deep-frying fats
LMBG L 13.03/4 1987-11 TST	Determination of the individual free tocopherols (tocopherols and tocotrienols) in food fats and food oils

21.2.11 Cereals, Back mixes

ASU L 16.01-1 1987-06 TST	Determination of the moisture content of cereal meal
ASU L 16.01-2 1987-06 TST	Determination of ash in cereal meal
ASU L 16.03-1 1987-06 TST	Determination of the moisture content of whole cereal meal
ASU L 16.03-2 1987-06 TST	Determination of ash in whole cereal meal

21.2.12 Bread, cookies

ASU L 17.00-1 1982-05 einschließlich Berichtigung 2002-12 TST	Determination of loss on drying in bread, including biscuits made from bread dough
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ASU L 17.00-12
1999-11
einschließlich Berichtigung
2003-07
TST

Determination of butyric acid as the methyl ester in fat from bread, including biscuits and bread doughs; supplement: Hadorn, Zurich: separation of the fatty acid methyl esters from C4 to C24 and quantitative determination of the milk fat in any fat mixtures

21.2.13 Pasta

ASU L 22.02/04-1
1995-01
TST

Determination of cholesterol in pastas made with eggs; gas chromatographic method

21.2.14 Vegetables, vegetable products

ASU L 26.04-3
1987-06
TST

Measurement of pH in liquid poured or pressed from sauerkraut

ASU L 26.04-4
1987-06
TST

Determination of titrable acids (total acid) in the liquid poured or pressed from sauerkraut

ASU L 26.11.03-11
1983-11
TST

Determination of total nitrogen in tomato pulp

ASU L 26.11.03-12
1983-11
TST

Determination of the formol number in tomato pulp

ASU L 26.11.03-3
1983-05
TST

Determination of the pH of tomato pulp

ASU L 26.11.03-8
1983-05
TST

Determination of the sugar content of tomato pulp (enzymatic method)

21.2.15 Fruit

ASU L 30.00-2 (EG)
1993-08
TST

Refractometric method for measurement of soluble dry residue in processed products from fruits and vegetables

21.2.16 Fruit juices

ASU L 31.00-1
1997-01
TST

Determination of the relative density, $d_{20/20}$, of fruit juices

ASU L 31.00-11
1984-11
TST

Determination of sugar content before and after inversion in fruit juices (Luft-Schoorl method)

ASU L 31.00-12 1997-01 TST	Determination of glucose and fructose in fruit juices
ASU L 31.00-13 1997-09 TST	Determination of sucrose in fruit juices
ASU L 31.00-14 1997-01 TST	Determination of citric acid (citrate) in fruit juices
ASU L 31.00-15 1997-01 TST	Determination of L-malic acid (L-malate) in fruit juices
ASU L 31.00-16 1997-09 TST	Measurement of the soluble dry residue in fruit juices; refractometric method
ASU L 31.00-2 1997-01 TST	Measurement of the pH of fruit juices
ASU L 31.00-3 1997-09 TST	Determination of titrable acids (total acid) in fruit juices
ASU L 31.00-4 1997-01 TST	Determination of ash in fruit and vegetable juices
ASU L 31.00-5 1997-09 TST	Determination of total ash alkalinity in fruit juices
ASU L 31.00-6 1997-01 TST	Determination of phosphate in fruit juice
ASU L 31.00-7 1997-01 TST	Determination of the proline content of fruit juices
ASU L 31.00-8 1997-01 TST	Determination of the formol value of fruit juices
ASU L 31.00-9 1997-01 TST	Determination of D-isocitric acid in fruit juices

21.2.17 Beer and similar products

ASU L 36.00-6 1986-11 TST	Determination of nitrosamines in beer
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DKFZ Methode 1980-01 TST	Determination of N-Nitrosodimethylamine (NDMA) in malt; according to Spiegelhalder, Eisenbrand and Preussmann
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21.2.18 Chocolate and chocolate products

ASU L 44.00-2 1985-12 TST	Preparation of chocolate and chocolate products for chemical examination
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ASU L 44.00-3 1985-12 TST	Determination of the dry weight of solid chocolate
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ASU L 44.00-4 1985-12 TST	Determination of the total fat content of chocolate
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ASU L 44.00-6 1985-12 TST	Determination of lactose in chocolate; enzymatic procedure
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21.2.20 Spirits and spirituous beverages

ASU L 37.00-1 1982-11 TST	Determination of the ethanol content in alcohol and alcoholic products of all types (other than wine and beer) with the pycnometer; reference method
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21.3 Miscellaneous methods

ASU L 36.00-3 1989-05 TST	Determination of the relative density, $d_{20/20}$ of wort and beer
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ASU L 36.00-3a 1989-12 TST	Determination of the relative density, $d_{20/20}$, of wort and beer; vibration test
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ASU L 36.00-4 1986-11 TST	Determination of the original wort content of beer from the alcohol content and actual extract; distillation method
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21.5 Determination of vitamins

AOAC 940.33 B2	Microbiological determination of Vitamin B2 (Riboflavin)
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AOAC 942.23 DIN EN 14122 2003-09 B2	Foodstuffs - Determination of vitamin B1 by HPLC; German version EN 14122:2003
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AOAC 944.12 DIN EN 14131 2003-09 B2	Microbiological determination of folate
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AOAC 944.13 B2	Microbiological determination of niacin
AOAC 945.74 B2	Microbiological determination of pantothenic acid
AOAC 952.20 B2	Microbiological determination of Vitamin B12
ASU L 13.03/04-1 1987-11 B2	Determination of total Vitamin E (tocopherols and tocopherol esters) by HPLC in food fats and fool oils
ASU L 49.00-1 1991-06 B2	Determination of Vitamin D (Cholecalciferol, ergocalciferol) by HPLC
ASU L 49.00-3 1985-05 B2	Determination of Vitamin A (retinol and retinol esters) by HPLC
ASU L 49.00-5 1998-09 B2	Determination of total Vitamin E (tocopherols and tocopherol esters) in foods by HPLC
DIN EN 12823-2 2000-07 B2	Determination of Vitamin A by HPLC; Part 2: Determination of alpha and beta carotene
Hausverfahren SOP M 542 2002-03 B2	Microbiological determination of Vitamin B1 (Thiamine)
Hausverfahren SOP M 543 2002-03 B2	Microbiological determination of Vitamin B6
Hausverfahren SOP M 544 2002-03 B2	Microbiological determination of biotin; Neurospora crass test
Hausverfahren SOP M 545 2002-03 B2	Microbiological determination of choline
Hausverfahren SOP M 546 2002-03 B2	Microbiological determination of Inositol; Schizosaccharomyces pombe test
Hausverfahren SOP M 547 2002-03 B2	Determination of Vitamin C by HPLC
Hausverfahren SOP M 548 2002-03 B2	Determination of Vitamin K1 (Phylloquinone) by HPLC
Hausverfahren SOP M 550 2003-09 B2	Photometric determination of total carotene

Hausverfahren SOP M 552 2002-03 B2	Determination of taurine by HPLC
Hausverfahren SOP M 654 B2	Determination of Vitamin B6 by HPLC
Hausverfahren SOP M 655 2003-11 B2	Microbiological determination of biotin; Lactobacillus plantarum test
Hausverfahren SOP M 656 2003-11 B2	Microbiological determination of inositol; Saccharomyces cerevisiae test
Hausverfahren SOP M 657 2003-11 B2	Determination of pantothenyl ethyl ether in cosmetics by HPLC
Hausverfahren SOP M 658 2003-11 B2	Determination of selected UV filter substances butylmethoxydi-benzoylmethane, 4-methylbenzylidenecamphor, ethylhexyl methoxycinnamate) in cosmetics by HPLC
Hausverfahren SOP M 659 2003-11 B2	Determination of d,l-alpha-tocopheryl acetate (Vitamin E acetate) in cosmetics by HPLC
IFU 44 Hausverfahren SOP M 551 2003-09 B2	Photometric determination of total carotenoids

22 Determination in the field of commodities and products

22.1 Physical and physical-chemical characteristics

ASTM Methode D1177-94 1994-01 TST	Determination of the freezing point of aqueous engine coolant
DIN 51755 1974-03 TST	Testing petroleum and other flammable liquids; determination of the closed-cup flash point by the Abel-Pensky procedure

22.2 Jointly determinable substances

ASU B 80.56-1 1991-05 TST	Determination of polychlorinated biphenyls (PCB) in paper and board
ASU B 82.02-2 1998-01 TST	Detection of use of certain azo dyes in textile items
ASU B 82.02-3 1997-03 TST	Determination of specific azo dyestuffs in leather

ASU B 82.02-4 1998-01 TST	Detection of use of certain azo dyes in polyester fibers
DIN 51527-1 1987-05 TST	Testing petroleum products; determination of polychlorinated biphenyls (PCBs); liquid chromatographic pre-separation and determination of six selected PCBs using a gas chromatograph with electron capture detector (ECD). (Variation: dilution with isohex)
DIN 54402 2001-12 TST	Testing ion exchangers; determination of the total capacity of anion exchangers
DIN 54403 2001-12 TST	Testing ion exchangers; determination of the total capacity of cation exchangers
Hausverfahren SOP M 370 2001-12 TST	Determination of pentachlorophenol and Lindane in room air, solids and commodities with GC/ECD
Hausverfahren SOP M 888 2006-01 TST	Determination of polybrominated flame retardants in various materials
Hausverfahren SOP M 889 2006-01 TST	Determination of plasticiser in various materials
Hausverfahren SOP M 890 2006-01 TST	Determination of plasticiser in aliphatic matrices
Hausverfahren SOP M 891 2006-01 TST	Determination of pesticides in plastics materials

22.3 Summary effect and material characteristics

ASU B 80.30-1 (EG) 1998-01 TST	Investigation of commodities; basic rules for determination of migration
ASU B 80.30-2 (EG) 1991-05 TST	Investigation of commodities: list of simulation solvents
ASU B 80.30-3 (EG) 2002-09 TST	Investigation of commodities: other procedures for testing for observing migration values
ASU B 82.02-1 1985-06 TST	Investigation of commodities; determination of release of formaldehyde from textile items
ASU B 82.10-1 1985-06 TST	Investigation of commodities; testing of colored toys for children for resistance to saliva and perspiration

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DIN 51777-2 1974-09 TST	Testing petroleum hydrocarbons and solvents; determination of the water content by the indirect Karl Fischer method
DIN EN 646 2000-12 TST	Paper and board intended to come in contact with foodstuffs; determination of the fastness of coloured paper and board
DIN EN 648 2003-06 TST	Paper and board intended to come in contact with foodstuffs; determination of the fastness of fluorescence whitened paper and board

22.4 Single compounds

BGesundhBl. 27 1984-05 TST	Determination of nitrosamines in certain items (baby pacifiers)
BGesundhBl. 53. Mitteilung 1994-05 TST	Determination of migration of N-nitrosamines from items into test
DIN EN 12868 1999-12 TST	Method for determination release of N-nitrosamines and substances susceptible to N-nitrosation from bottles and pacifiers of elastomers and rubber

22.5 Test procedures according to the recommendations of "Plastics in the Food Business", Carl-Heymann-Verlag KG

Band 2 / BII VIII 1998-10 TST	Testing items of plastic and other polymers for inclusion in beverage dispensers
Band 2 / BII XV 2.2.4/14 1998-10 TST	Determination of the volatile components of silicone elastomers
Band 2 / BII XV 2.2.4/9 1998-10 TST	Determination of the extractable portions of items made from silicone resins and silicone elastomers
Band 2 / BII XXI 2.5.2.2.3 1998-10 TST	Quantitative photometric determination of N-ethylphenylamine in aqueous extracts of rubber products
Band 2 / BII XXI 2.5.2.2.4 1998-10 TST	Determination of primary amines in aqueous foods under test
Band 2 / BII XXI 2.5.2.2.5 1998-10 TST	Testing for secondary aliphatic and cycloaliphatic amines in rubber products

Band 2 / IX
1998-10
TST
Testing colored items made from plastics and other polymers for color migration

Band 3 / B IV
4.3.2.2
1998-10
TST
Determination of glyoxal

23 Tests in the areas of hygiene and hospital hygiene

23.1 Sampling

Hausverfahren SOP M 111
1996-11
SW, TST
Determination of airborne microorganisms with the RCS instrument

Hausverfahren SOP M 115
1997-10
SW, TST
Environmental examination with Rodac plates

23.2 Tests in the area of disinfection

23.2.1 Standard DGHM methods for testing chemical disinfection procedures

DGHM Standardmethode 10
2001-09
TST
Hygienic hand washing

DGHM Standardmethode 11
2001-09
TST
Hygienic hand disinfection

DGHM Standardmethode 12
2001-09
TST
Surgical hand disinfection

DGHM Standardmethode 13
2001-09
TST
Skin disinfection

DGHM Standardmethode 14
2001-09
TST
Surface disinfection

DGHM Standardmethode 15
2001-09
TST
Chemical instrument disinfection

DGHM Standardmethode 16
2001-09
TST
Chemical laundry disinfection

DGHM Standardmethode 17
2001-09
TST
Thermochemical laundry disinfection

DGHM Standardmethode 18 2001-09 TST	Qualitative microbial carrier test with bacteria and yeasts (DHGM 1991) - Surface disinfection
DGHM Standardmethode 19 2001-09 TST	Qualitative microbial carrier test with pieces of rubber tubing (DHGM 1991) - Instrument disinfection
DGHM Standardmethode 7 2001-09 TST	Determination of bacteriostatic and fungistatic action, and suitable neutralizing agents
DGHM Standardmethode 8 2001-09 TST	Determination of bactericidal and fungicidal action in the qualitative suspension test
DGHM Standardmethode 9 2001-09 TST	Determination of bactericidal and fungicidal action in the quantitative suspension test

23.2.2 List of requirements for inclusion of chemical disinfection procedures in the DGHM disinfectant list

DGHM Methode 10 2002-04 TST	Surface disinfection
DGHM Methode 11 2002-04 TST	Instrument disinfection
DGHM Methode 12 2002-04 TST	Laundry disinfection
DGHM Methode 3 2002-04 TST	Determination of bacteriostatic and fungistatic effectiveness, and suitable neutralizing agents
DGHM Methode 4 2002-04 TST	Determination of bactericidal and fungicidal effectiveness in the qualitative suspension test
DGHM Methode 5 2002-04 TST	Determination of bactericidal, mycobactericidal and fungicidal effectiveness in the quantitative suspension test
DGHM Methode 6 2002-04 TST	Hygienic hand washing
DGHM Methode 7 2002-04 TST	Hygienic hand disinfection
DGHM Methode 8 2002-04 TST	Surgical hand disinfection

DGHM Methode 9 2002-04 TST	Skin disinfection
DIN EN 1040 1997-04 TST	Chemical disinfectants and antiseptics; Quantitative suspension test for the evaluation of basic bactericidal activity of chemical disinfectans and antiseptics; Test method and requirements
DIN EN 1275 1997-05 TST	Chemical disinfectants and antiseptics; Quantitative suspension test for the evaluation of fungicidal activity of chemical disinfectans and antiseptics; Test method and requirements (Phase 1)
DIN EN 1276 1997-08 TST	Chemical disinfectants and antiseptics; Quantitative suspension test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectans used in food, industrial, domestic and institutional areas
DIN EN 13697 2002-01 TST	Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectans used in food, industrial, domestic and institutional areas; Test method and requirements without mechanical action (Phase 2/step 2)
DIN EN 1499 1997-06 TST	Chemical disinfectants and antiseptics - Hygienic handwash - Test method and requirements (phase 2/step 2)
DIN EN 1500 1997-10 TST	Chemical disinfectants and antiseptics
DIN EN 1650 1998-02 TST	Qualitative suspension test to determine the fungicidal action of chemical disinfectants and antiseptics in the areas of foods, industry, household and public institutions
prEN 12054 1998-07 TST	Chemical disinfectants and antiseptics - Products for hygienic and surgical handrub and handwash - Bactericidal activity; test method and requirements

24 Tests in the field cosmetics, pharmaceuticals, raw materials

Hausverfahren SOP M 626 2003-05 SW	Efficiency of the Advances Preservative Free System (APF System) against bacteria in suspension (dip test)
Hausverfahren SOP M 627 SW	Leak-testing of filters in adapters using a bacterial gas in an aquarium
Ph. Eur. 4 (2.6.12) SW	Total aerobic viable counting
Ph. Eur. 4 (2.6.13) SW	Detection of certain microorganisms

24.1 Microbiological methods according the each valid Pharmacopoeae, USP and the standard procedure

DIN 58940-6 1989-06 TST	Determination of the minimal inhibitory concentration by the agar dilution method
DIN EN ISO 11737-2 2000-04 B2	Sterilization of medicinal products; Part 2: Sterility tests in validation of a sterilization process
Hausverfahren SOP M 091 TST	Testing non-sterile medicinal products for microbial contamination (Bioburden)
Hausverfahren SOP M 375 2002-02 B2	Testing non-sterile medicinal products for microbial contamination
Hausverfahren SOP M 376 2002-03 B2	Examination of water for injection: Microbial contamination
Hausverfahren SOP M 377 2002-02 B2	Examination of purified water
Hausverfahren SOP M 401 2002-03 B2	Examination of water samples: test for bacterial endotoxins
Hausverfahren SOP M 402 2002-03 B2	Test for adequate antimicrobial preservation
Hausverfahren SOP M 463 2002-03 TST	Microbial examination of cosmetics
ISO 11737-1 1995-12 B2	Sterilization of medicinal products; Part 1: Estimation of the population of microorganisms in products
Ph. Eur. SOP M 073 TST	Microbiological testing of non-sterile products according to the European Pharmacopeia; Counting total viable microorganisms
Ph. Eur. SOP M 074 TST	Microbiological testing of non-sterile products according to the European Pharmacopeia; Detection of certain microorganisms
Ph. Eur. SOP M 075 TST	Examination of sterility
Ph. Eur. SOP M 077 TST	Testing for bacterial endotoxins according to the European Pharmacopeia
Ph. Eur. SOP M 078 TST	Test for adequate preservation
Ph. Eur. SOP M 090 TST	Microbiological examination of spore strips from medicinal products
USP SOP M 075 TST	Sterility Tests

USP SOP M 077 TST	Bacterial Endotoxins Test
USP SOP M 078 TST	Antimicrobiological Effectiveness Testing
USP SOP M 089 TST	Microbial Limit Test
USP SOP M 090 TST	Microbiological examination of in medicine products
USP SOP M 241 TST	Microbial Limit Test; Total Aerobic Microbial Count

abbreviations used:

AbfKlärV	Klärschlammverordnung
AltöIV	Altölverordnung
AOAC	Association of Official Analytical Chemists
ASTM	American Society of Testing and Material
ASU	Amtliche Sammlung von Untersuchungsmethoden nach § 35 Lebensmittel- und Bedarfsgegenstände-Gesetz
BAM	Bundesanstalt für Materialforschung und -prüfung
BBA	Biologische Bundesanstalt
BBodSchV	Bundes-Bodenschutzverordnung
BG.ZH	Hauptverband der gewerblichen Berufsgenossenschaften, Zentralstelle der Länder für Unfallverhütung und Arbeitsmedizin
BGBI	Bundesgesetzblatt
Bgesundh.Bl.	Bundesgesundheitsblatt
BGI	Berufsgenossenschaftliche Information
BGR	Bundesanstalt für Geowissenschaften und Rohstoffe
BIA	Berufsgenossenschaftliches Institut für Arbeitssicherheit
BioAbfV	Bioabfallverordnung
BSE / TSE	Bovine spongiforme Enzephalopathie / Transmissible spongiforme Enzephalopathie
CEC	Commission of Environmental Cooperation
DEV	Deutsche Einheitsverfahren
DFG	Deutsche Forschungsgemeinschaft
DGHM	Deutsche Gesellschaft für Hygiene und Mikrobiologie e. V.
DIN	Deutsches Institut für Normung e. V.
DKFZ	Deutsches Krebsforschungszentrum
DLR	Deutsche Lebensmittelrundschaue
DVGW	Deutscher Verein des Gas- und Wasserfaches
DVWK	Deutscher Verband für Wasserwirtschaft und Kulturbau
EN	Europäische Norm
EPA	Environmental Protection Agency, USA
EPAL	European Pallet Association e. V.
EWGRL	Europäische Gemeinschaftsrichtlinie
FGSV	Forschungsgesellschaft für Straßen und Verkehrswesen
GME	General Motor Europe Engineering
Hausverfahren SOP	Inhouse methode of INSTITUT FRESENIUS
HLUG	Hessisches Landesamt für Umwelt und Geologie
ISO	International Organization for Standardization
ITVA	Ingenieurtechnischer Verband Altlasten
LAGA	Länderarbeitsgemeinschaft Abfall
LAWA	Länderarbeitsgemeinschaft Wasser
LMBG	Lebensmittel- und Bedarfsgegenstände-Gesetz

LUA NRW	Landesumweltamt Nordrhein-Westfalen
MEBAK	Mitteleuropäische Brautechnische Westfalen
MTVO	Mineral- und Tafelwasserverordnung
NF	Norme Francaise enregistree
NIOSH	National Institute for Occupational Safety and Health
OECD	Organisation for Economic Co-operation and Development
OFD H	Oberfinanzdirektion Hannover
PB VWL	Interne Abteilungsbezeichnung von DaimlerChrysler
Ph. Eur.	Pharmacopoea Europea
PV	Prüfvorschrift
STD	Standard (Volvo oder SAAB-Norm)
TensV	Tensidverordnung
TP Min - StB	Technische Prüfvorschriften für Mineralstoffe im Straßenbau
TrinkwV	Trinkwasserverordnung
TVO	Trinkwasserverordnung
UBA	Umweltbundesamt
UIC	Union Internationale des Chemins de Fers
USP	United State Pharmacopeia
VCS	Volvo Corporate Standard
VDA	Verband der Deutschen Automobilindustrie
VDE	Verein Deutscher Elektriker
VDI	Verein Deutscher Ingenieure
WHO	World Health Organization
ZH	Zentraler Hauptverband der Berufsgenossenschaft

(B)	The test methods correspond to the Standards, technical rules and other methods listed in the Federal Soil Protection Act (BBodSchV) of 12 December 1999, Annex 1, Article 6.1.
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(I, D)	The test methods correspond to the agreement between the Water Authority of Berlin and DAP of 19 December 1996 on the accreditation of testing laboratories which provide waste water analyses under the internal quality control of indirect and direct waste water emittents.
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(MA)	The test methods correspond to the standards, technical rules and other methods indicated in the Technical Module Waste (Draft; as 28th September 2001), Annex 5, Point 2. The requirements of the testing areas 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3 and 3.4 are fulfilled.
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(MB)	The test methods correspond to the standards, technical rules and other methods indicated in the Technical Module Soil and Contaminated Sites (Draft; as 12th September 2000), Annex 1. The requirements of the testing areas 1, 2, 3, 4, 5, 6 and 7 are fulfilled.
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(MI)	The test methods correspond to the standards, technical rules and other methods indicated in the Technical Module Immission Control (Draft; as 16th April 2001), Annex 1. The requirements of the testing areas 4.1, 4.2, 4.3, 4.4 and 4.5 are fulfilled.
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(MW)	The test methods correspond to the standards, technical rules and other methods indicated in the Technical Module Water (Draft; as 15th April 2003), Annex. The requirements of the testing areas 1, 2, 3, 4, 5, 6, 7, 8 and 9 are fulfilled.
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