

## Deutsche Akkreditierungsstelle

### Annex to the Accreditation Certificate D-PL-22162-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 28.09.2023

**Date of issue:** 28.09.2023

Holder of accreditation certificate:

**Hopfenveredlung St. Johann GmbH**  
**Freiligrathstraße 7/9**  
**90482 Nürnberg**

with the location

**Hopfenveredlung St. Johann GmbH**  
**NATECO2 Laboratory Department**  
**Auenstraße 18-20**  
**85283 Wolnzach**

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

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

Tests in the fields:

**Physico-chemical and chemical analysis of foodstuffs and feedstuffs**

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

Abbreviations used: see last page

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

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**1 Analysis of foodstuffs**

**1.1 Determination of ingredients using liquid chromatography**

ASU L 47.00-6 2014-02	Analysis of foodstuffs – Analysis of tea and solid tea extract – Determination of caffeine content – HPLC method
ASU L 47.08-1/1 2002-05	Analysis of foodstuffs – Determination of theobromine and caffeine content of liquid tea beverages – Part 1: HPLC routine procedure
W-1001 2022-05	Determination of cannabinoids in hemp and hemp products by gradient HPLC-DAD
W-1002 2022-09	Determination of astaxanthin after enzymatic hydrolysis by HPLC in foodstuffs and feedstuffs (Restriction: <i>Here only in foodstuffs</i> )

**1.2 Determination of ingredients using gas chromatography**

DGF C-VI 10 a (00) 2016	German standard methods for the analysis of fats and fat products – Special methods – Gas chromatography: Analysis of fatty acids and fatty acid distribution
DGF C-VI 11 a (16) 2016	German standard methods for the analysis of fats and fat products – Special methods – Fatty acid methyl ester transmethylation with boron trifluoride (BF <sub>3</sub> ) (Modification: <i>Dissolving process sample in toluene</i> )
W-1008 2022-07	Determination of hemp flavours (including terpenes) in hemp and hemp products using GC-FID

**1.3 Titrimetric determination of parameters, ingredients and additives**

DIN EN ISO 8534 2017-02	Animal and vegetable fats and oils – Determination of water content – Karl Fischer method (pyridine-free)
ASU L 13.00-5 2012-01	Analysis of foodstuffs – Determination of acid number and acidity of animal and vegetable fats and oils
ASU L 13.00-10 2019-07	Analysis of foodstuffs – Animal and vegetable fats and oils – Determination of the iodine value

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ASU L 13.00-40  
2012-01                      Analysis of foodstuffs – Animal and vegetable fats and oils –  
Determination of the peroxide value – Potentiometric endpoint  
determination  
(Modification: *Solvent mixture CHCl<sub>3</sub>:AcOH 2:3*)

**1.4      Physical, physico-chemical and chemical analysis**

ASU L 06.00-6  
2014-08                      Analysis of foodstuffs – Determination of total fat content in meat  
and meat products – Weibull-Stoldt gravimetric method  
(Modification: *Matrix foodstuffs*)

ASU L 13.05-3  
2002-05                      Analysis of foodstuffs – Determination of fat content in margarine  
and other fat spreads  
(Modification: *Matrix foodstuffs, indicated as equivalent to scCO<sub>2</sub>  
extraction*)

ASU L 13.00-15  
2018-06                      Analysis of foodstuffs – Animal and vegetable fats and oils –  
Determination of the anisidine value

ASU L 13.00-18  
2021-03                      Analysis of foodstuffs – Determination of saponification number in  
animal and vegetable fats and oils

ASU L 13.00-19  
2004-12                      Analysis of foodstuffs – Determination of unsaponifiable matter in  
vegetable and animal fats and oils – Method using hexane extraction

ASU L 13.00-20  
2004-12                      Analysis of foodstuffs – Determination of unsaponifiable matter in  
vegetable and animal fats and oils – Method using diethyl ether  
extraction

ASU L 13.00-28  
2018-10                      Analysis of foodstuffs – Determination of the refractive index of  
animal and vegetable fats and oils

ASU L 13.00-47  
2019-07                      Analysis of foodstuffs – Animal and vegetable fats and oils –  
Determination of the conventional mass per volume (litre weight in  
air)

ASU L 15.00-6  
2011-06                      Analysis of foodstuffs – Determination of moisture content in cereals  
and cereal products

W-4004  
2022-08                      Determination of moisture content in plant material using  
microwave drying

**1.5 Determination of residues and contaminants using liquid chromatography (HPLC-MS/MS) and gas chromatography (GC-MS or GC-MS/MS) with mass-selective detectors**

ASU L 00.00-34 2010-09	Analysis of foodstuffs – Modular multi-method for the determination of plant protection product residues in foodstuffs (revised and extended version of DFG Method S 19)
W-2002 2021-12	Determination of plant protection product residues (LC-MS/MS) in lipophilic matrices and plant materials with increased fat content (Matrix: <i>Lipophilic extracts (e.g. from ethanol extraction, scCO<sub>2</sub> extraction and plant materials with a fat content &gt; 2.5%)</i> )
W-2004 2022-09	Determination of polycyclic aromatic hydrocarbons (PAHs) in fatty foodstuffs and feedstuffs by GC-MS
W-2005 2022-09	Determination of cannabinoid residues in foodstuffs and feedstuffs by LC-MS/MS

**2. Analysis of feedstuffs**

**2.1 Determination of ingredients using liquid chromatography**

W-1001 2022-05	Determination of cannabinoids in hemp and hemp products by gradient HPLC-DAD
W-1002 2022-09	Determination of astaxanthin after enzymatic hydrolysis by HPLC in foodstuffs and feedstuffs (Restriction: <i>Here only in feedstuffs</i> )

**2.2 Determination of ingredients using gas chromatography**

DGF C-VI 10 a (00) 2016	German standard methods for the analysis of fats and fat products – Special methods – Gas chromatography: Analysis of fatty acids and fatty acid distribution
DGF C-VI 11 a (16) 2016	German standard methods for the analysis of fats and fat products – Special methods – Fatty acid methyl ester transmethylation with boron trifluoride (BF <sub>3</sub> ) (Modification: <i>Dissolving process sample in toluene</i> )
W-1008 2022-07	Determination of hemp flavours (including terpenes) in hemp and hemp products using GC-FID

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### 2.3 Titrimetric determination of parameters, ingredients and additives

DIN EN ISO 8534 2017-02	Animal and vegetable fats and oils – Determination of water content – Karl Fischer method (pyridine-free)
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### 2.4 Determination of residues and contaminants using liquid chromatography (HPLC-MS/MS) and gas chromatography (GC-MS or GC-MS/MS) with mass-selective detectors

ASU L 00.00-34 2010-09	Analysis of foodstuffs – Modular multi-method for the determination of plant protection product residues in foodstuffs (revised and extended version of DFG Method S 19) (Modification: <i>Extension to feedstuffs</i> )
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W-2002 2021-12	Determination of plant protection product residues (LC-MS/MS) in lipophilic matrices and plant materials with increased fat content (Matrix: <i>Lipophilic extracts (e.g. from ethanol extraction, scCO<sub>2</sub> extraction and plant materials with a fat content &gt; 2.5%</i> )
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W-2004 2022-09	Determination of polycyclic aromatic hydrocarbons (PAHs) in fatty foodstuffs and feedstuffs by GC-MS
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W-2005 2022-09	Determination of cannabinoid residues in foodstuffs and feedstuffs by LC-MS/MS
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#### Abbreviations used:

DIN	Deutsches Institut für Normung e.V. (German Institute for Standardisation)
IEC	International Electrotechnical Commission
EN	European standard
ISO	International Organization for Standardization
ASU	Official Collection of Methods of Analysis on the basis of § 64 Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuches (German Food and Feed Code, LFGB)
DGF	Deutsche Gesellschaft für Fettwissenschaft (German Society for Fat Research)
W-XXXX	In-house method of the laboratory NATECO <sub>2</sub> – Hopfenveredlung St. Johann GmbH