

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-20965-01-00  
according to DIN EN ISO/IEC 17025:2005

**Valid from: 18.10.2018**

Date of issue: 18.10.2018

Holder of certificate:

**Eurofins Food Integrity Control Services GmbH  
Berliner Straße 2, 27721 Ritterhude**

Tests in the fields:

**sensory, microscopic, physical und physicochemical analysis of honey**

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

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

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

Abbreviations used: see last page

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.  
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

## Analysis of honey

### 1 Sensory analysis

ICS SOP 520-02  
2018-08                      Sensory analysis - Simple descriptive analysis of honey (visual appearance, odor, taste, texture)

### 2 Determination of sediment (water insoluble substances) by microscopic analysis \*

DIN 10760  
2002-05                      Analysis of honey - determination of the relative pollen content (Modification: *sample weigh-in*)

ICS SOP 520-08  
2018-05                      Analysis of honey - determination of the yeast content by microscopy

ICS SOP 520-10  
2018-05                      Analysis of honey - determination of the starch content by microscopy

### 3 Determination of ingredients and foreign substances by liquid chromatography with conventional detectors (UV, ELSD) \*

DIN 10758  
1997-05                      Analysis of honey - determination of the content of saccharides fructose, glucose, sucrose, turanose and maltose - HPLC method (Modification: *ELSD detector, sample weigh-in, flow rate*)

ICS SOP 510-08  
2018-07                      Determination of the hydroxymethylfurfural (HMF) content in honey by HPLC-UV

ICS SOP 520-04  
2018-05                      Determination of the  $\beta$ - and  $\gamma$ -amylase activity in honey by HPLC-UV (foreign amylases)

ICS SOP 520-05  
2018-08                      Analysis of honey - determination of the  $\beta$ -fructofuranosidase activity by LC-ELSD

ICS SOP 520-09  
2018-07                      Analysis of honey - determination of oligosaccharides foreign to honey by LC-ELSD

ICS SOP 520-14  
2018-08                      Analysis of honey - determination of mannose by LC-ELSD

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**4 Determination of ingredients, foreign substances, residues and contaminants by liquid chromatography with mass-selective detectors (MS/MS, HR-MS) \***

ICS SOP 510-12 2018-08	Determination of methyl anthranilate in honey by LC-HRMS
ICS SOP 520-06 2018-08	Determination of SM-R in honey by LC-HRMS
ICS SOP 520-12 2018-08	Determination of E150d in honey by LC-HRMS
ICS SOP 520-17 2018-07	Analysis of honey by LC-HRMS to detect fraudulent addition of sugar syrups
ICS SOP 520-19 2018-08	Determination of SM-B in honey by LC-HRMS
ICS SOP 530-01 2018-07	Analysis of honey - determination of amphenicols by LC-MS
ICS SOP 530-02 2018-07	Analysis of honey - determination of nitroimidazoles by LC-MS
ICS SOP 530-03 2018-07	Analysis of honey - determination of sulfonamides and trimethoprim by LC-MS
ICS SOP 530-04 2018-07	Analysis of honey - determination of tetracyclines by LC-MS
ICS SOP 530-05 2018-07	Analysis of honey - determination of macrolides by LC-MS
ICS SOP 530-06 2018-07	Analysis of honey - determination of streptomycin und dihydrostreptomycin by LC-MS
ICS SOP 530-07 2018-07	Analysis of honey - determination of nitrofurantolol metabolites by LC-MS
ICS SOP 530-08 2018-07	Analysis of honey - determination of amitraz by LC-MS

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ICS SOP 530-09 2018-07	Analysis of honey - determination of fluoroquinolones by LC- MS
ICS SOP 530-10 2018-08	Determination of pyrrolizidine alkaloids in honey by LC-HRMS
ICS SOP 530-11 2018-07	Analysis of honey - determination of dapsons by LC-MS

**5 Determination of ingredients by isotope ratio - mass spectrometry (IRMS) \***

AOAC 998.12 1999-03	C-4 Plant Sugars in Honey - Internal Standard Stable Carbon Isotope Ratio Method (Protein, Honey)
ICS SOP 520-13 2018-07	Analysis of honey - Determination of honey adulteration by 13C/12C EA/LC-IRMS (Detection of C4/C3 sugars)

**6 Determination of ingredients and foreign substances by photometry \***

ICS SOP 510-01 2018-08	Determination of the diastase activity in honey according to Phadebas (enzymatically)
ICS SOP 510-04 2018-08	Determination of the diastase activity and the heat-stable diastase activity in honey by Autoanalyzer (enzymatically)
ICS SOP 510-05 2018-03	Determination of the color of honey with the HANNA photometer
ICS SOP 510-07 2018-08	Determination of the glycerol content of honey (enzymatically)
ICS SOP 510-09 2018-08	Determination of the proline content of honey (photometrically)
ICS SOP 510-10 2018-08	Determination of the invertase activity in honey according to Siegenthaler (enzymatically)
ICS SOP 520-01 2018-05	Determination of the foreign amylase in honey by enzymatic assay (Foreign Amylase Profiling - FAmYP)

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## 7 Other physical and physicochemical analyses

ICS SOP 510-03 2018-03	Determination of the water content of honey with digital refractometer
ICS SOP 510-06 2018-08	Determination of the conductivity, pH value and free acid in honey (potentiometrically, conductometrically, titrimetrically)
ICS SOP 510-11 2018-08	Determination of the content of water insoluble solids in honey (gravimetrically)

### Abbreviations used:

AOAC	Association of Analytical Communities
DIN	Deutsches Institut für Normung e.V.
EN	European Norm
ICS SOP 5XX-XX	Inhouse method of Eurofins Food Integrity Control Services GmbH
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization

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