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<b>Waterinsoluble Solids in honey</b>	<b>g/100 g :</b>	<b>0.020</b>
Sulfonamides LMBG L 01.00-66, mod. hydrolysis		
<b>Sulfonamides</b>	<b>µg/kg :</b>	<b>&lt; 10 *</b>
<b>Tetracyclines</b>	<b>µg/kg :</b>	<b>&lt; 10 *</b>
RIA; Charm-Test		
<b>Streptomycin</b>	<b>µg/kg :</b>	<b>&lt; 10 *</b>
RIA, Charm-Test		
<b>Honey: % sugar from C4 plants</b>	<b>% :</b>	<b>0.0</b>
(calculated)		
<b>Isotope analysis (delta C13)</b>	<b>o/oo :</b>	<b>-26.1</b>
(measured against standard PDB)		
<b>Isotope analysis with internal standard (protein fraction)</b>	<b>o/oo :</b>	<b>-26.1</b>
<b>Potassium (K)</b>	<b>mg/kg :</b>	<b>910</b>
DIN EN ISO 11885		
<b>Calcium (Ca)</b>	<b>mg/kg :</b>	<b>165</b>
DIN EN ISO 11885		
<b>Magnesium (Mg)</b>	<b>mg/kg :</b>	<b>108</b>
DIN EN ISO 11885		
<b>Sodium (Na)</b>	<b>mg/kg :</b>	<b>48</b>
DIN EN ISO 11885		
<b>Phosphorus (P)</b>	<b>mg/kg :</b>	<b>74</b>
DIN EN ISO 11885		
<b>Chloride, titrimetr.</b>	<b>mg/kg :</b>	<b>420</b>
<b>Iron (Fe)</b>	<b>mg/kg :</b>	<b>3.0</b>
DIN EN ISO 11885		
<b>Manganese (Mn)</b>	<b>mg/kg :</b>	<b>13</b>
DIN EN ISO 11885		
<b>Silicon (Si)</b>	<b>mg/kg :</b>	<b>83</b>
DIN EN ISO 11885		
<b>Chromium (Cr)</b>	<b>mg/kg :</b>	<b>&lt; 0,2 *</b>
AAS, graphite tube technique		
<b>Selen (Se)</b>	<b>mg/kg :</b>	<b>&lt; 0,2 *</b>
AAS, Graphitrohr-Technik		
DIN 38405-D23		
<b>Zinc (Zn)</b>	<b>mg/kg :</b>	<b>0,5</b>
DIN EN ISO 11885		
<b>Copper (Cu)</b>	<b>mg/kg :</b>	<b>&lt; 0,1 *</b>
DIN EN ISO 11885		
<b>Iodine, I</b>	<b>mg/kg :</b>	<b>0.22</b>
photometry acc. to Sandell-Kolthoff		
<b>Sulfate (SO4), calc. from sulfur (S)</b>	<b>mg/kg :</b>	<b>132</b>
DIN EN ISO 11885		
<b>Ethanol</b>	<b>mg/kg :</b>	<b>6.9</b>
enzymatische Bestimmung		
DIN 10762-E		
<b>Glycerole (enzymat.)</b>	<b>mg/kg :</b>	<b>748</b>
DIN 10763-E		

Orders are accepted and completed according to our General Trading Terms. Place of execution and place of jurisdiction is Hamburg -lower district court Hamburg 66, HRB 31 746

General Manager: Dr. Urban Jörissen, Signing Clerk: Dr. Wilfried Winkelmann, Dr. Christian Hummert. The results of examination refer exclusively to the checked samples. Duplicates - even in parts - must be authorized by the test laboratory in written form.



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**Heavy metals**

<b>Cadmium (Cd)</b> AAS, graphite tube technique	mg/kg : < 0,01 *
<b>Lead (Pb)</b> AAS, graphite tube technique	mg/kg : < 0,05 *
<b>Mercury (Hg)</b> AAS, cold vapour technique	mg/kg : < 0,005 *

<b>Vitamin C (HPLC)</b>	mg/100 g : < 1 *
<b>Vitamin B1, microbiological activity,</b> rel. to thiamin hydrochloride	mg/100 g : < 0,01 *
<b>Vitamine B2, microbiological activity,</b> rel. to riboflavine (AOAC 94033/45.02.06)	mg/100 g : 0.053
<b>Vitamin B6, microbiological activity,</b> rel. to pyridoxin hydrochloride	mg/100 g : 0.018
<b>Nicotinsäure</b> mikrobiologische Aktivität, bez. auf Nicotinsäure	mg/100 g : 0.11
<b>Pantothenic acid</b> Microbiological activity, rel. to D-pantothenic acid (AOAC 94574/45.2.05)	mg/100 g : 0.18
<b>detection of folic acid,</b> ELISA	µg/100 g : 40
<b>Biotin</b> mikrobiologische Aktivität, ber. auf Biotin	µg/kg : 1.1
<b>Pesticides</b> Analyses at the Eurofins laboratory Dr. Specht & Partner, Hamburg	
Organochlorpesticides	: not detectable **
Organophosphorus pestizides	: not detectable **

\*\*quantification limit: see enclosure  
substrate A

<b>- Amitraz</b> analyzed as dimethylaniline watersteamdestillation, GC/MS	mg/kg : < 0,005 *
<b>- Phenol</b> Internal method Water steam destillation, GC/MS	mg/kg : < 0,05 *

<b>Chloramphenicol (CAP)</b> Derivatization (Trimethylsilyl-reagent) GC/MS determination, NCI mode	µg/kg : < 0,1 *
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Microbiological Results

<b>Aerobic mesophilic colony count</b> LMBG L 06.00-18	CFU/g : 40
<b>Moulds</b> LMBG L 01.00-37, mod.	CFU/g : <10
<b>Yeasts</b> LMBG L 01.00-37, mod.	CFU/g : <10



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**Osmophilic yeasts** CFU/g : <10

Internal method

**Mesophilic sulfite-reducing Clostridia** /g : < 0,3

LMBG L 06.00-39, mod. (DRCM-Agar)

**Bacillus cereus** CFU/g : 20

LMBG L00.00-33

**antibacterial activity**

(liquid test, turbidity)

: **positive**  
(up to third dilution 1:8)

**Sensoric findings**

: **sweet like honey**  
**little like honeydew**

**Microscopical examination**

**Honey dew compounds**

: **little**

**other compounds**

: **cristal mass, beehair, spores**  
**starch**

**Number of counted pollen**

: **500**

**Pollen analysis**

DIN 10760 (Draft)

(\*: plants without nectar)

**Very frequent pollen**

Mimosas

% : ca. 52

**Frequent pollen**

Galium

% : ca. 26

**Rare pollen**

Amaranthaceae

Anacardiaceae

Combretaceae

Compositae/Vernonia Gr.

Compositae H/Viguiera Typ

Mimosaceae/Mimosa pudica

Mimosaceae/Piptadenia Gr.

Mimosaceae/Mimosa scabrella

Mimosaceae/Schrankiaformen

Rubiaceae/Galium Gr.

**Conclusion:**

**The pollenspektra is characteristic for a mimosaceae honey from Central-southamerica (Brasilica).**

**Glucose oxidase (Schepartz)**

**µg H<sub>2</sub>O<sub>2</sub>/g/Min. : 16,6**

**Total Antioxidant Status**

**(Trolox equivalent antioxidative capacity): 8,42 mmol/kg**

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Amino acid composition in mg/1000 g free amino acid:

Aspartic acid	12,9
Threonine	16,1
Serine	25,4
Asparagine	.5,0
Glutamic acid	13,1
Proline	872,8
Glycine	11,6
Alanine	31,3
Valine	19,3
Methionine	15,1
Isoleocine	10,2
Leucine	15,1
Tyrosine	38,0
Phenylalanine	95,5
Omithine	0,7
Lysine	16,1
Histidine	11,3
Arginine	18,5
Glutamin	61,2

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Summe 1.289,6

\* the given value corresponds to the limit of determination

Judgement

Regarding the microbiological examination the sample shows an unobjectable quality.

(Dr. Jörissen / Dr. Hummert / Dr. Winkelmann)  
Dr. Wiertz - Dipl. Chem. - Eggert - Dr. Jörissen GmbH  
Trade and environmental protection laboratory Hamburg