

EUROFINS DR. SPECHT LABORATORIEN GMBH - POSTFACH 90 02 64 - D-21042 HAMBURG

Goji Land Romania  
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RUMÄNIEN**Report:** AR-16-SP-153091-01**Sample code:** 388-2016-00148497

21.12.2016 - Rz

**YOUR ORDER:** 24.11.2016

Page 1 of 6

**SAMPLE RECEIPT:** 02.12.2016**PACKING:** 1 glas with screw cap**MARKING:** Not Applicable**LABORATORY SAMPLE:** Goji Tincture (GMP)**Description:** About 400 g liquid**Analysis:** Start: 06.12.2016

End: 19.12.2016

**GMP:** Yes**APPLIED METHODS:**Modular multi method for the determination of pesticide residues in foods according to § 64 LFGB method L 00.00-34**Organochlorine Pesticides:** GC/ECD**Pyrethroids:** GC/ECD**Organophosphorus Pesticides:** GC/FPD (P)**N-containing / other Pesticides:** GC/MSDFurther Methods**Dithiocarbamates:** DIN EN 12396-3: 2000; photometric**Sample preparation\*:** Microwave digestion**Heavy metals\*:** Lead (Pb): ICP-MS, Ph. Eur. 2.2.58

Cadmium (Cd): ICP-MS, Ph. Eur. 2.2.58

Mercury (Hg): ICP-MS, Ph. Eur. 2.2.58

**Aflatoxines\*:** EP 2.8.18

Further Methods

<b>Microbiology</b> *:	Colony count (TAMC):	EP 2.6.12
	Yeasts (TYMC):	EP 2.6.12
	Bile-tolerant negative bacteria:	EP 2.6.13
	Escherichia coli:	EP 2.6.13
	Salmonella :	EP 2.6.13
	Staphylococcus aureus:	EP 2.6.13

\* performed by subcontractor

<b>RESULT OF ANALYSIS:</b>	<b>Residues found</b>	<b>Limit of Quantification</b>	<b>Maximum Residue Level**</b>
<b>Organochlorine Pesticides</b>			
Total Aldrin, Dieldrin	not detectable		
where: Aldrin	not detectable	0.005 mg/kg	0.05 mg/kg
Dieldrin	not detectable	0.005 mg/kg	Σ (Aldrin, Dieldrin)
Total Chlordan	not detectable		
where: alpha-Chlordan (cis)	not detectable	0.005 mg/kg	0.05 mg/kg
gamma-Chlordan (trans)	not detectable	0.005 mg/kg	Σ (cis-, trans-, Oxychlordan)
Oxychlordan	not detectable	0.005 mg/kg	
Chlorthal-dimethyl	not detectable	0.005 mg/kg	0.01 mg/kg
Total DDT	not detectable		
where: o,p-DDE	not detectable	0.005 mg/kg	1.0 mg/kg
p,p-DDE	not detectable	0.005 mg/kg	Σ (o,p-DDD, p,p-DDD, o,p-DDE, p,p-DDE, o,p-DDT, p,p-DDT)
o,p-DDD	not detectable	0.005 mg/kg	
p,p-DDD	not detectable	0.005 mg/kg	
o,p-DDT	not detectable	0.005 mg/kg	
p,p-DDT	not detectable	0.005 mg/kg	
Total Dicofol	not detectable		0.5 mg/kg
where: o,p-Dicofol	not detectable	0.04 mg/kg	
p,p-Dicofol	not detectable	0.04 mg/kg	
Total Endosulfane	not detectable		3.0 mg/kg
where: alpha-Endosulfane	not detectable	0.005 mg/kg	Σ (alpha-, beta-, Endosulfansulfate)
beta-Endosulfane	not detectable	0.005 mg/kg	
Endosulfansulfate	not detectable	0.01 mg/kg	
Endrin	not detectable	0.01 mg/kg	0.05 mg/kg
Total Heptachlor	not detectable		0.05 mg/kg
where: Heptachlor	not detectable	0.005 mg/kg	Σ (Heptachlor, cis-,trans-Heptachloroepoxid)
cis-Heptachloroepoxide	not detectable	0.005 mg/kg	
trans-Heptachloroepoxide	not detectable	0.005 mg/kg	
Hexachlorobenzene	not detectable	0.005 mg/kg	0.1 mg/kg
Total HCH-Isomers (without Lindane)	not detectable		0.3 mg/kg
where: alpha-HCH	not detectable	0.005 mg/kg	Σ (α-, β-, δ-, ε-HCH)
beta-HCH	not detectable	0.01 mg/kg	
delta-HCH	not detectable	0.005 mg/kg	
epsilon-HCH	not detectable	0.005 mg/kg	
Lindan (gamma-HCH)	not detectable	0.005 mg/kg	0.6 mg/kg
Methoxychlor	not detectable	0.01 mg/kg	0.05 mg/kg
Mirex	not detectable	0.005 mg/kg	0.01 mg/kg
Total Quintozene	not detectable		1.0 mg/kg
where: Quintozene	not detectable	0.005 mg/kg	Σ (Quintozene, Pentachloroaniline, Methyl-Pentachlorophenylsulfide)
Pentachloroaniline	not detectable	0.005 mg/kg	
Methyl-Pentachlorophenylsulfide	not detectable	0.005 mg/kg	
Pendimethalin	not detectable	0.01 mg/kg	0.1 mg/kg
Pentachloroanisol	not detectable	0.005 mg/kg	0.01 mg/kg
S 421	not detectable	0.005 mg/kg	0.02 mg/kg
Tecnazen	not detectable	0.005 mg/kg	0.05 mg/kg
Tetradifon	not detectable	0.01 mg/kg	0.3 mg/kg

<b>RESULT OF ANALYSIS: (continued)</b>	<b>Residues found</b>	<b>Limit of Quantification</b>	<b>Maximum Residue Level**</b>
<b>Pyrethroids</b>			
Cyfluthrin	not detectable	0.02 mg/kg	0.1 mg/kg
lambda-Cyhalothrin	not detectable	0.02 mg/kg	1.0 mg/kg
Cypermethrin	not detectable	0.02 mg/kg	1.0 mg/kg
Deltamethrin	not detectable	0.02 mg/kg	0.5 mg/kg
Fenpropathrin	not detectable	0.02 mg/kg	0.03 mg/kg
Total Fenvalerate	not detectable		1.5 mg/kg
where: Fenvalerate ( $\Sigma$ RR- + SS-Isomers)	not detectable	0.02 mg/kg	$\Sigma$ (RR- + SS-Isomers and RS- + SR-Isomers)
Fenvalerate ( $\Sigma$ RS- + SR-Isomers)	not detectable	0.02 mg/kg	
Flucythrinate	not detectable	0.02 mg/kg	0.05 mg/kg
tau-Fluvalinate	not detectable	0.02 mg/kg	0.05 mg/kg
Permethrin	not detectable	0.02 mg/kg	1.0 mg/kg
<b>Organophosphorus Pesticides</b>			
Acephate	not detectable	0.05 mg/kg	0.1 mg/kg
Azinphos-methyl	not detectable	0.05 mg/kg	1.0 mg/kg
Azinphos-ethyl	not detectable	0.05 mg/kg	0.1 mg/kg
Bromophos-ethyl	not detectable	0.02 mg/kg	0.05 mg/kg
Bromophos(-methyl)	not detectable	0.02 mg/kg	0.05 mg/kg
Chlorfenvinphos	not detectable	0.02 mg/kg	0.5 mg/kg
Chlorpyrifos(-ethyl)	not detectable	0.02 mg/kg	0.2 mg/kg
Chlorpyrifos-methyl	not detectable	0.02 mg/kg	0.1 mg/kg
Diazinon	not detectable	0.02 mg/kg	0.5 mg/kg
Total Dimethoate, Omethoate	not detectable		0.1 mg/kg
where: Dimethoat	not detectable	0.02 mg/kg	$\Sigma$ (Dimethoat, Omethoat)
Omethoat	not detectable	0.02 mg/kg	
Dichlorvos	not detectable	0.02 mg/kg	1.0 mg/kg
Ethion	not detectable	0.02 mg/kg	2.0 mg/kg
Etrimphos	not detectable	0.02 mg/kg	0.05 mg/kg
Total Fenchorphos	not detectable		0.1 mg/kg
where: Fenchlorphos	not detectable	0.02 mg/kg	$\Sigma$ (Fenchlorphos, Fenchlorphos- oxon)
Fenchlorphos-oxon	not detectable	0.02 mg/kg	
Fenitrothion	not detectable	0.02 mg/kg	0.5 mg/kg
Total Fensulfothion	not detectable		0.05 mg/kg
where: Fensulfothion	not detectable	0.02 mg/kg	$\Sigma$ (Fensulfothion, Fensulfothion- oxon, Fensulfothion-oxon-sulfon, Fensulfothion-sulfon)
Fensulfothion-oxon	not detectable	0.02 mg/kg	
Fensulfothion-oxon-sulfon	not detectable	0.02 mg/kg	
Fensulfothion-sulfon	not detectable	0.02 mg/kg	
Total Fenthion	not detectable		0.05 mg/kg
where: Fenthion	not detectable	0.02 mg/kg	$\Sigma$ (Fenthion, Fenthion-oxon, Fenthion-oxon-sulfon, Fenthion- oxon-sulfoxid, Fenthion-sulfon, Fenthion-sulfoxid)
Fenthion-oxon	not detectable	0.02 mg/kg	
Fenthion-oxon-sulfon	not detectable	0.02 mg/kg	
Fenthion-oxon-sulfoxid	not detectable	0.02 mg/kg	
Fenthion-sulfon	not detectable	0.02 mg/kg	
Fenthion-sulfoxid	not detectable	0.02 mg/kg	
Fonophos	not detectable	0.02 mg/kg	0.05 mg/kg
Total Malathion	not detectable		1.0 mg/kg
where: Malathion	not detectable	0.02 mg/kg	$\Sigma$ (Malathion, Malaoxon)
Malaoxon	not detectable	0.02 mg/kg	
Mecarbam	not detectable	0.02 mg/kg	0.05 mg/kg
Methacrifos	not detectable	0.02 mg/kg	0.05 mg/kg
Methamidophos	not detectable	0.02 mg/kg	0.05 mg/kg
Methidathion	not detectable	0.02 mg/kg	0.2 mg/kg
Monocrotophos	not detectable	0.02 mg/kg	0.1 mg/kg

<b>RESULT OF ANALYSIS: (continued)</b>	<b>Residues found</b>	<b>Limit of Quantification</b>	<b>Maximum Residue Level**</b>
Total Parathion (-ethyl) where: Parathion(-ethyl) Paraoxon(-ethyl)	not detectable not detectable not detectable	 0.02 mg/kg 0.02 mg/kg	 0.5 mg/kg Σ (Parathion, Paraoxon-ethyl)
Total Parathion-methyl where: Parathion-methyl Paraoxon-methyl	not detectable not detectable not detectable	 0.02 mg/kg 0.02 mg/kg	 0.2 mg/kg Σ (Parathion-methyl, Paraoxon-methyl)
Phosalon	not detectable	0.05 mg/kg	0.1 mg/kg
Phosmet	not detectable	0.02 mg/kg	0.05 mg/kg
Pirimiphos-ethyl	not detectable	0.02 mg/kg	0.05 mg/kg
Total Pirimiphos-methyl where: Pirimiphos-methyl N-desethyl-pirimiphos-methyl	not detectable not detectable not detectable	 0.02 mg/kg 0.02 mg/kg	 4.0 mg/kg Σ (Pirimiphos-methyl, N-desethyl-pirimiphos-methyl)
Profenofos	not detectable	0.02 mg/kg	0.1 mg/kg
Prothiophos	not detectable	0.02 mg/kg	0.05 mg/kg
Quinalphos	not detectable	0.02 mg/kg	0.05 mg/kg
<b>Further Pesticides</b>			
Alachlor	not detectable	0.05 mg/kg	0.05 mg/kg
Brompropylate	not detectable	0.05 mg/kg	3.0 mg/kg
Dichlofluanid	not detectable	0.1 mg/kg	0.1 mg/kg
Piperonyl butoxide	not detectable	0.05 mg/kg	3.0 mg/kg
Procymidon	not detectable	0.05 mg/kg	0.1 mg/kg
Pyrethrum	not detectable	0.5 mg/kg	3.0 mg/kg
Vinclozolin	not detectable	0.05 mg/kg	0.4 mg/kg
<b>Dithiocarbamates</b> (determined and calculated as CS <sub>2</sub> )	not detectable	0.1 mg/kg	2.0 mg/kg
<b>Heavy metals</b>			
Lead (Pb):	<0.02 mg/kg	0.02 mg/kg	5.0 mg/kg
Cadmium (Cd):	<0.02 mg/kg	0.02 mg/kg	1.0 mg/kg
Mercury (Hg):	<0.02 mg/kg	0.02 mg/kg	0.1 mg/kg
<b>Aflatoxines</b>			
Aflatoxine B <sub>1</sub> :	<1 µg/kg	<1 µg/kg	2 µg/kg
Aflatoxine B <sub>2</sub> :	<1 µg/kg	<1 µg/kg	
Aflatoxine G <sub>1</sub> :	<1 µg/kg	<1 µg/kg	
Aflatoxine G <sub>2</sub> :	<1 µg/kg	<1 µg/kg	
Aflatoxine (Summe)	<4 µg/kg	<4 µg/kg	4 µg/kg Σ (Aflatoxine B <sub>1</sub> , Aflatoxine B <sub>2</sub> , Aflatoxine G <sub>1</sub> , Aflatoxine G <sub>2</sub> )
<b>RESULT OF ANALYSIS:</b>	<b>Residues found</b>		
Total combined yeast and moulds count (TYMC)	260 CfU/g		
Total aerobic microbial count (TAMC)	365 CfU/g		
Bile-tolerant negative bacteria	<10 CfU/g		
Escherichia coli	not detectable /g		
Salmonella	not detectable /10g		
Staphylococcus aureus	not detectable /g		
Candida albicans	not detectable /g		
Pseudomonas aeruginosa	not detectable /g		

**CONCLUSION:**

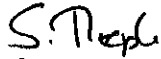
The results of the mentioned above pesticide residue analysis are in accordance with the European Pharmacopeia 8.8 (07/2016) listed in table 1 of chapter 2.8.13.

Heavy metal: Analysis in accordance to method European Pharmacopeia 8.8 chapter 2.2.58 (monography 1433).

Aflatoxine analysis: Analysis is based on method European Pharmacopeia 8.8 chapter 2.8.18. (monography 1433).

No specific matrix validation data are available for this matrix.

This analysis was performed under GMP.

  
(Dr. Anspach / D. Weiland / Dr. S. Rzepka / Dr. A. Klimmek)  
Managing Director      Analytical Service Manager      GMP Project Manager      GMP Project Manager