



APPENDIX TO THE CERTIFICATE OF ANALYSIS
R21-16781 for sample R21082117

Directive for analysis: 110 from 13.08.2021

Sample number	R21082117
Sample name	<u>CRUDE SOYBEAN OIL (NON-DEGUMMED)</u>
STATEMENT OF CONFORMITY PHYSICAL-CHEMICAL CONTAMINANTS/RESIDUES TESTING:	
Based on the results of the analyzed parameters sample is in compliance with Commission Regulation (EC) No 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC and Annexes I, II, III, IV and VII and Directive 2002/32/EC of the European Parliament and of the council on undesirable substances in animal feed.	

08.09.2021


Predrag Vulicević MS
Specialist in Sanitary Chemistry

By certificate of analysis number R21-16781 sample was analyzed R21082117.

Statement:

1. This report must not be multiplied, except on the whole, with approval of SP LABORATORIJA.
2. The test results refer only to the test sample.
3. The test results are applied only to the sample as received, except when the SP Laboratory is responsible for the sampling phase.
4. SP LABORATORIJA is responsible for all data presented in the Test Report except for those obtained from the test users.
5. SP LABORATORIJA gives up the responsibility for the validity of the results for whose statements the data obtained from the users have been used.
6. SP LABORATORY disclaims responsibility for declarations of conformity issued on the basis of testing of aggregate samples at the request of the user
7. Test location in SP Laboratory: Industrijska 3, 21220 Bečej

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CERTIFICATE OF ANALYSIS R21-16781 / R21082117
Sample number: R21082117

Applicant	PRIVREDNO DRUŠTVO ZA EKONOMSKE, FINANSIJSKE, INFORMATIČKE I TRGOVINSKO-PROIZVODNE USLUGE BANKOM DRUŠTVO SA OGRANIČENOM ODGOVORNOŠĆU BEOGRAD, BULEVAR NIKOLE TESLE 30A, Beograd-Zemun, Bulevar Nikole Tesle 30/A
Directive for analysis	110 from 13.08.2021.
Sample name	CRUDE SOYBEAN OIL (NON-DEGUMMED)
Asked analysis	Analysis by client's request
Sampling data	Sample was delivered 13.08.2021.
Sample receiving date	13.08.2021.
Start testing date	13.08.2021.
End testing date	08.09.2021.
Report number	R21-16781
Date of issue of the report	08.09.2021.

By certificate of analysis number R21-16781 sample was analyzed R21082117.

R21082117: CRUDE SOYBEAN OIL (NON-DEGUMMED)

Identification:

Data obtained from user:
Producer: BANKOM DOO, Serbia
Expiry date: 07.2022.
Lot: 080721E1A12525

Net weight of delivered sample: 400 ml

Results of physical-chemical contaminants/residues testing

Analysis	Result	Expanded measurement uncertainty ⁹⁾	Methods	
Pirimiphos-methyl [mg/kg]	0,22	± 0,110	SRPS EN 15662	GC/MS/MS
Residue of pesticides (shown in the table 1) [mg/kg]	< 0,005 ²⁾	± 50%	SRPS EN 15662	GC/MS/MS
Residue of pesticides (shown in the table 2) [mg/kg]	< 0,01 ²⁾	± 50%	SRPS EN 15662	GC/MS/MS
Residue of pesticides (shown in the table 3) [mg/kg]	< 0,01 ²⁾	± 50%	SRPS EN 15662	LC/MS/MS

²⁾Limit of quantification (LOQ); ⁹⁾Extended measurement uncertainty is expressed as a combined standard measurement uncertainty increased by the coverage factor k = 2 for a confidence level of approximately 95%

Determination of pesticide residues by SRPS EN 15662 is within the flexible scope of accreditation.

Note

Commission Regulation (EC) No 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC and Annexes I, II, III, IV and VII for soybean amounts:

- Pirimifos- methyl: 0,5mg/kg

Prema Article 20 Commission Regulation (EC) No 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC and Annexes I, II, III, IV and VII, changes in pesticide residue levels caused by processing and / or mixing must be taken into account.

Source of reference values: Commission Regulation (EC) No 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC and Annexes I, II, III, IV and VII i Directive 2002/32/EC of the European Parliament and of the council on undesirable substances in animal feed.

Analysis	Result	Expanded measurement uncertainty ^{g)}	Reference data	Methods	
Benzo (a) pyrene [µg/kg]	< 1 ²⁾	± 35%	-	VM/MET 1116	GC/MS/MS
Benzo (a) antracen [µg/kg]	< 1 ²⁾	± 35%		VM/MET 1116	GC/MS/MS
Benzo (b) fluoranten [µg/kg]	< 1 ²⁾	± 35%		VM/MET 1116	GC/MS/MS
Krizen [µg/kg]	< 1 ²⁾	± 35%		VM/MET 1116	GC/MS/MS
Lead (Pb), calculated at 12% moisture [mg/kg]	< 0,1 ²⁾	± 25%	max 10	VM/MET 865	ICP/MS
Arsenic (As), calculated at 12% moisture [mg/kg]	< 0,1 ²⁾	± 25%	max 2	VM/MET 865	ICP/MS
Cadmium (Cd), calculated at 12% moisture [mg/kg]	< 0,1 ²⁾	± 25%	max 1	VM/MET 865	ICP/MS
Mercury (Hg), calculated at 12% moisture [mg/kg]	< 0,02 ²⁾	± 25%	max 0,1	VM/MET 865	ICP/MS

²⁾Limit of quantification (LOQ); ^{g)}Extended measurement uncertainty is expressed as a combined standard measurement uncertainty increased by the coverage factor k = 2 for a confidence level of approximately 95%

Determination of metals and metalloids by VM/MET 865 is within the flexible scope of accreditation.

Note

Source of reference values: Directive 2002/32/EC of the European parliament and of the council of May 2002 on undesirable substances in animal feed and 2006/576/EC of August 2006.

Dioxins / Furans / Dioxin - like PCBs / Dioxin - like PCBs

Analysis	Result	Expanded measurement uncertainty ^{g)}	Methods	
2,3,7,8-TCDD [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,7,8-PeCDD [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,4,7,8-HxCDD [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,6,7,8-HxCDD [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,7,8,9-HxCDD [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,4,6,7,8-HpCDD [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
OCDD [ng/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
2,3,7,8-TCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,7,8-PeCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
2,3,4,7,8-PeCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS

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Analysis	Result	Expanded measurement uncertainty ⁹⁾	Methods	
1,2,3,4,7,8-HxCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,6,7,8-HxCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
2,3,4,6,7,8-HxCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,7,8,9-HxCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,4,6,7,8-HpCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
1,2,3,4,7,8,9-HpCDF [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
OCDF [ng/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
WHO-PCDD/F-TEQ lower-bound [ng/kg]	0,000		PB-408 ed. I	GC/HRMS
WHO-PCDD/F-TEQ medium-bound [ng/kg]	0,070	± 0,010	PB-408 ed. I	GC/HRMS
WHO-PCDD/F-TEQ upper-bound [ng/kg]	0,139	± 0,021	PB-408 ed. I	GC/HRMS
PCB-081 [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
PCB-077 [ng/kg]	0,456	± 0,091	PB-408 ed. I	GC/HRMS
PCB-126 [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
PCB-169 [ng/kg]	< 0,05 ²⁾		PB-408 ed. I	GC/HRMS
PCB-123 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-118 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-114 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-105 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-167 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-156 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-157 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
PCB-189 [ng/kg]	< 10 ²⁾		PB-408 ed. I	GC/HRMS
WHO-dl-PCB-TEQ lower-bound [ng/kg]	0,000		PB-408 ed. I	GC/HRMS
WHO-dl-PCB-TEQ medium-bound [ng/kg]	0,004	± 0,001	PB-408 ed. I	GC/HRMS
WHO-dl-PCB-TEQ upper-bound [ng/kg]	0,008	± 0,001	PB-408 ed. I	GC/HRMS
WHO-PCDD/F-PCB-TEQ lower-bound [ng/kg]	0,000		PB-408 ed. I	GC/HRMS
WHO-PCDD/F-PCB-TEQ medium-bound [ng/kg]	0,074	± 0,011	PB-408 ed. I	GC/HRMS
WHO-PCDD/F-PCB-TEQ upper-bound [ng/kg]	0,147	± 0,022	PB-408 ed. I	GC/HRMS
PCB-028 [µg/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
PCB-052 [µg/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
PCB-101 [µg/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
PCB-153 [µg/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
PCB-138 [µg/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
PCB-180 [µg/kg]	< 0,1 ²⁾		PB-408 ed. I	GC/HRMS
Sum of ndl-PCB (ICES-6) lower-bound [µg/kg]	0,00		PB-408 ed. I	GC/HRMS
Sum of ndl-PCB (ICES-6) medium-bound [µg/kg]	0,26	± 0,04	PB-408 ed. I	GC/HRMS
Sum of ndl-PCB (ICES-6) upper-bound [µg/kg]	0,53	± 0,08	PB-408 ed. I	GC/HRMS

²⁾Limit of quantification (LOQ); ⁹⁾Extended measurement uncertainty is expressed as a combined standard measurement uncertainty increased by the coverage factor k = 2 for a confidence level of approximately 95%

Result se izračunava in regard to hranu za životinje sa sadržajem vlage 12%.

The test was performed within the scope of accreditation in the laboratory under the accreditation number AB 079.

Results of physical-chemical testing

Analysis	Result	Expanded measurement uncertainty ⁹⁾	Methods	
Water content and volatile matter [%]	0,14	± 0,054	SRPS EN ISO 662:2017	Drying
Phosphorus [mg/kg]	614	± 60	AOCS Ca 12-55:2017	Spectrophotometry
Content of phosphatides [%]	1,84	± 0,180	AOCS Ca 12-55:2017	Spectrophotometry
Free fatty acid (as oleic) [%]	1,07	± 0,091	SRPS EN ISO 660:2015	Volumetry
Relative bulk density (20/20°C)	0,9231	± 0,00185	SRPS EN ISO 6883:2017	Pycnometry
Index of refraction (40°C)	1,4676	± 0,00088	SRPS EN ISO 6320:2017	Refractometry
Iodine number by Viijs [g/100g]	126,7	± 4,43	SRPS EN ISO 3961:2019	Volumetry

⁹⁾Extended measurement uncertainty is expressed as a combined standard measurement uncertainty increased by the coverage factor k = 2 for a confidence level of approximately 95%

Testing of genetic modification

Analysis	Result	LOD [%]	Methods	
Detection of genetic modification-GTS 40-3-2 (RoundUp Ready)	Not detected	0,05	JRC GMO Protocol ¹⁵⁹⁾	Real Time PCR

LOD - limit of detection;

Tests JRC GMO Protocol are within the flexible scope of accreditation.

Note

According to article 3 of the Law on Genetically Modified Organisms (Official Gazette of RS 41/2009), genetically modified organisms is not considered an agricultural product of vegetable origin contain up to 0.9% threshold of genetically modified organisms and impurities of genetically modified organisms.

Seed and reproductive material are not considered genetically modified organisms if contain up to 0.1% threshold of genetically modified organisms and impurities of genetically modified organisms.

Table 1 - List of analyzed pesticide residues (LFO 001) in the delivered sample with the determined concentrations <LOQ (limit of quantification)

Beta-BHC	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan sulfate	
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Table 2 - List of analyzed pesticide residues (LFO 001) in the delivered sample with the determined concentrations <LOQ (limit of quantification)

2,4-DDT	4,4' – DDD	4,4' – DDE	4,4' – DDT	Aldrin	Alpha-BHC
Azinphos-methyl	Benalaxyl	Bifenthrin	Biphenyl	Boscalid (Nicofen)	Buprofezin
Carboxin	Chlordan-cis	Chlordan-trans	Chlorfenapyr	Chlorpropham	Chlorpyrifos-ethyl
Chlorpyrifos-methyl	Cinidon-ethyl	Cyfluthrin I	Cyfluthrin II	Cyfluthrin III	Cyfluthrin IV
Cypermethrin I	Cypermethrin II	Cypermethrin III	Cypermethrin IV	Cyprodinil	Delta-BHC
Deltametrin	Diazinon	Dichlorvos	Dicloran	Dieldrin	Difenoconazol
Diphenylamine	Disulfoton	Endrin	Endrin aldehyde	Endrin ketone	Epoxiconazole
Esfenvalerate	Ethion	Ethoprophos	Etoxazole	Fenbuconazole	Fenitrothion
Fenpropathrin	Fenthion	Fenvalerate	Fluazifop-p-butyl	Flusilazole	Heptachlor
Heptachlor epoxide-cis (exo)	Hexachlorobenzene (HCB)	Hexaconazole	Imazalil	Iprodione	Kresoxim-methyl
Lambda-Cyhalothrin	Lindan (Gama-BHC)	Malathion	Mepanipyrim	Metalexyl	Metconazole
Methacrylos	Methoxychlor	Metrafenone	Mevinphos (Phosdrin)	Myclobutanil	Nitrofen
Orthophenylphenol (2-Phenylphenol)	Penconazole	Permethrin-cis	Permethrin-trans	Prochloraz	Propargite
Propiconazole I	Propiconazole II	Pyridaben	Pyrimethanil	Pyriproxyfen	Quintozene
Spirodiclofen	Spiroxamine I	Spiroxamine II	Tebuconazole	Tebufenpyrad	Tefluthrin
Tetraconazole	Trifloxystrobin	Trifluralin	Vinclozolin		

Table 3 - List of analyzed pesticide residues (LFO 001) in the delivered sample with the determined concentrations <LOQ (limit of quantification)

1-Naphthylacetamide	Acetamiprid	Aldicarb	Aldicarb-sulfone	Aldicarb-sulfoxide	Azoxystrobin
Carbendazim	Carbetamide	Chlorantraniliprole	Chloroxuron	Cyazofamid	Desmedipham
Diethofencarb	Dimethenamid	Dimethoate	Ethirimol	Fluopyram	Imidacloprid
Iprovalicarb	Metazachlor	Methiocarb	Methiocarb-sulfone	Methiocarb-sulfoxide	Metosulam

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SP Laboratorija is GMP+ B11 registered laboratory under number GMP049738

Table 3 - List of analyzed pesticide residues (LFO 001) in the delivered sample with the determined concentrations <LOQ (limit of quantification)					
Omethoate	Oxycarboxin	Phoxim	Propoxur	Tebufenozide	Tepraloxydim
Thiabendazole	Thiacloprid	Thifensulfuron-methyl			

¹⁵⁹JRC Compendium of reference methods for GMO analysis

Results approved:

Biljana Marošanović MS Spec. in Tox.Chemistry.
C.E.O. of Instrumental Analysis Dpt.

Биљана Марошановић

dipl. Ing. Gordana Nović
C.E.O. of Genetical and Physical-Chemical Analysis Dpt.

Гордана Новић

Report approved:

Predrag Vulićević MS, Specialist in Sanitary Chemistry

Предраг Вулићевић

Statement:

1. This report must not be multiplied, except on the whole, with approval of SP LABORATORIJA.
2. The test results refer only to the test sample.
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5. SP LABORATORIJA gives up the responsibility for the validity of the results for whose statements the data obtained from the users have been used.
6. Test location in SP Laboratory: Industrijska 3, 21220 Bečej



Declaration of Conformity

Nr. NL19/819943476
GMP+ Int. Nr. GMP049738
SGS Nr.: 30373



SGS Product & Process Certification states that participant:

SP LABORATORIJA AKCIONARSKO DRUŠTVO

Industrijska 3
21220 Bečej
Serbia

was audited in accordance with the applicable requirements of the GMP+ B11 Protocol for GMP+ registration for laboratories and GMP+ C7 Assessment and certification/inspection criteria for GMP+ certification/inspection – additional/specific scopes of GMP+ International B.V. in Rijswijk, The Netherlands.



SGS Product & Process Certification states, based on desk study, that the performance criteria as mentioned in the GMP+ BA11 Performance criteria for GMP+ Registered Laboratory are met for the analyses mentioned in the appendix and on the website of GMP+ International (www.gmpplus.org).

Statement start date: 09 June 2021
Statement end date: 09 June 2022

Authorized by:

M. Kaizer
Certification Manager SGS Product & Process Certification



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**Appendix to Declaration of Conformity
NL19/819943476**

No	Operation	Material / Matrix		
		Feed material	Feed additives and premixtures	Compound-and complementary feed
1. Aflatoxin B1				
1.01	Aflatoxin B1	x		x
2. Dioxins and dioxin-like PCBs				
2.01	Sum of dioxins and dioxin-like PCBs			
2.02	Dioxins			
2.03	Dioxin-like PCBs			
2.04	Non-dioxin-like PCBs			
3. Heavy Metals and Fluorine				
3.01	Arsenic	x	x	x
3.02	Lead	x	x	x
3.03	Cadmium	x	x	x
3.04	Mercury	x		x
3.05	Fluorine			



GMP+ Int. No: GMP049738
SGS No: CI000031

