



**Commodities International
Shipping and Survey**



**FOSFA
INTERNATIONAL**

Page 1/3

CISS GROUP UKRAINE LLC
member of **CISS GROUP Pte.Ltd. (Singapore)**
5, Odessa Blv., Ovidiopol district,
Lymanka village, Odessa region, 65037
inspection@ciiss-group.com

CERTIFICATE No.: SGD01270

ORIGINAL

ORIGINAL ANALYSIS CERTIFICATE

In pursuance of an order received from our principal, requesting us to carry out inspection we hereby confirm as follows:

Description of goods:	CRUDE SUNFLOWER OIL OBTAINED FROM SUNFLOWER SEEDS
Vessel:	M/T ELIANA
Quantity:	5250,000 MT
B/L No. & Date:	NO. 1 AND 2 DD 11.03.2024
Shipper:	SUNOLTA OU HARJU MAAKOND, TALLINN, KESKLINNA LINNAOSA, JOE TN 4C, 10151 ESTONIA
Consignee:	TO ORDER
Notify address:	AGRIMED S.A. ZONE INDUSTRIELLE AGAREB 3030 SFAX, TUNISIA
Port of loading:	ODESA, UKRAINE
Port of discharge:	SFAX PORT, TUNISIA
Vessel Tanks Nos.:	1P,2P,3P,4P,5P,1S,2S,3S,4S,5S

RESULTS OF QUALITY INSPECTION

Representative samples of the oil have been drawn from each ship's tank 1P,2P,3P,4P,5P,1S,2S,3S,4S,5S of MT ELIANA and sealed from vessel's tanks after competition of loading according to FOSFA CONTRACT No.54. One vessel's sample were submitted for analysis to FOSFA approved chemical laboratory. The following results of analysis have been obtained:

Parameter	Method	Specification	Results
FREE FATTY ACIDS CONTENT (AS OLEIC ACID)	ISO 660	MAXIMUM 1.5 %	0.35%
MOISTURE	ISO 662	MAX 0.5 %	0.15%
IMPURITIES	ISO 663		
MASS FRACTION OF NON- FAT ADMIXTURES	ISO 663	NO MORE THAN 0,1%	0.05%
FLASH POINT	ISO 15267	MIN 121 °C	no flash at 121 °C
COLOR NUMBER OF IODINE	DSTU 4568	NO MORE THAN 25 MG	9.0 mg I2/100 cm ³
ACID VALUE	ISO 660	NO MORE THAN 4,0 MG KOH/G	0.70 mg KOH/g
PHOSPHORUS	ISO 10540-1	NO MORE THAN 300 PPM	55.17 PPM
PEROXIDE VALUE	ISO 3960	MAX 10,0 ½ O MMOL/KG	2.81½ mmol/kg
UNSATURATED MATTER	ISO 18609	MAX 1,5%	0.80%
SEDIMENTS	ISO 15301	MAX 2%	0.6%
CHOLESTEROL	ISO 12228-1	MAX 0,7%	0.2%
WAX CONTENT	ISO/TS 23647	-	113 mg/kg of oil





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Page 2/3

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Parameter	Method	Result	LOQ**
Hydrocarbon content attributed to mineral origin (C10-C56), ppm (mg/kg)	ISO 17780	< 50*	50 ppm (mg/kg)
Mineral oil (C10-C24), ppm (mg/kg)	ISO 17780	< 50*	50 ppm (mg/kg)

Parameter	Method	Specification	Result	LOQ**
MASS FRACTION OF LEAD	AGM-07	NOT MORE THAN 0,10 MG/KG	< 0.05*	0.05 ppm
MASS FRACTION OF CADMIUM	AGM-07	NOT MORE THAN 0,05 MG/KG	< 0.01*	0.01 ppm
MASS FRACTION OF COPPER	AGM-07	NOT MORE THAN 0,4 MG/KG	< 0.05*	0.05 ppm
MASS FRACTION OF ZINC	AGM-07	NOT MORE THAN 5,0 MG/KG	< 0.1*	0.1 ppm
MASS FRACTION OF ARSENIC	AGM-07	NOT MORE THAN 0,1 MG/KG	< 0.05*	0.05 ppm
MASS FRACTION OF MERCURY	AGM-07	NOT MORE THAN 0,03 MG/KG	< 0.01*	0.01 ppm
MASS FRACTION OF IRON	AGM-07	NOT MORE THAN 5 MG/KG	< 0.05*	0.05 ppm

Parameter	Method	Result	LOQ
Caproic acid C6:0, %	ISO 12966-4	< 0.05*	0.05 %
Caprylic acid C8:0, %	ISO 12966-4	< 0.05*	0.05 %
Capric acid C10:0, %	ISO 12966-4	< 0.05*	0.05 %
Lauric acid C12:0, %	ISO 12966-4	< 0.05*	0.05 %
Myristic acid, C14:0, %	ISO 12966-4	0.1	0.05 %
Palmitic acid C16:0, %	ISO 12966-4	6.6	0.05 %
Palmitoleic acid C16:1, %	ISO 12966-4	0.1	0.05 %
Heptadecanoic acid C17:0, %	ISO 12966-4	< 0.05*	0.05 %
cis-10-Heptadecenoic acid C17:1, %	ISO 12966-4	< 0.05*	0.05 %
Stearic acid C18:0, %	ISO 12966-4	3.2	0.05 %
Oleic acid C18:1n9c, %	ISO 12966-4	28.3	0.05 %
Linoleic acid C18:2n6c, %	ISO 12966-4	60.8	0.05 %
α-Linolenic acid (omega3) C18:3n3, %	ISO 12966-4	0.1	0.05 %
Arachidic acid C20:0, %	ISO 12966-4	0.2	0.05 %
cis-11-Eicosenoic acid C20:1, %	ISO 12966-4	0.1	0.05 %
cis-11,14-Eicosadienoic acid C20:2, %	ISO 12966-4	< 0.05*	0.05 %
Behenic acid C22:0, %	ISO 12966-4	0.4	0.05 %
Erucic acid C22:1n9, %	ISO 12966-4	< 0.05*	0.05 %
cis-13,16-Docosadienoic acid C22:2, %	ISO 12966-4	< 0.05*	0.05 %
Lignoceric acid C24:0, %	ISO 12966-4	0.1	0.05 %
Nervonic acid C24:1, %	ISO 12966-4	< 0.05*	0.05 %



This certificate is issued to any job or services carried out within the GENERAL TERMS AND CONDITION OF BUSINESS printed overleaf. This certificate is not intended to relieve the parties of any relevant sales contract from their contractual obligations. The Company's responsibility under this Certificate is limited to proven negligence and will in no case be more than ten times the amount of the fees.



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Page 3/3

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Parameter	Method	Result
Benz(a)anthracene, µg/kg (ppb)	ISO 15753	2.0
Chrysene, µg/kg (ppb)	ISO 15753	1.7
Benzo(b)fluoranthene, µg/kg (ppb)	ISO 15753	1.6
Benzo(a)pyrene, µg/kg (ppb)	ISO 15753	1.6
Total polycyclic aromatic hydrocarbons content (Sum of Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(a)pyrene), µg/kg (ppb)	ISO 15753	6.9

Parameter	Method	Result	LOQ
Total sterols content, mg/kg (ppm)	ISO 12228-1	3062	0.05 ppm
Cholesterol, %	ISO 12228-1	0.2	0.05 %
Cholestanol, %	ISO 12228-1	< 0.05*	0.05 %
Brassicasterol, %	ISO 12228-1	< 0.05*	0.05 %
24-Methylene cholesterol, %	ISO 12228-1	< 0.05*	0.05 %
Campesterol, %	ISO 12228-1	8.9	0.05 %
Campestanol, %	ISO 12228-1	< 0.05*	0.05 %
Stigmasterol, %	ISO 12228-1	9.1	0.05 %
Δ7-Campesterol, %	ISO 12228-1	4.0	0.05 %
Δ5,23-Stigmastadienol, %	ISO 12228-1	< 0.05*	0.05 %
Clerosterol, %	ISO 12228-1	< 0.05*	0.05 %
β-Sitosterol, %	ISO 12228-1	57.2	0.05 %
Sitostanol, %	ISO 12228-1	< 0.05*	0.05 %
Δ5-Avenasterol, %	ISO 12228-1	3.7	0.05 %
Δ5,24-Stigmastadienol, %	ISO 12228-1	< 0.05*	0.05 %
Δ7-Stigmastenol, %	ISO 12228-1	12.1	0.05 %
Δ7-Avenasterol, %	ISO 12228-1	4.8	0.05 %

Test Description	Method	LOQ**	Units	Results
MOSH: => C10 - <=C16	EN 16995:2017	2,0	mg/kg	<2,0
MOSH: > C16 - <=C20	EN 16995:2017	2,0	mg/kg	<2,0
MOSH: > C20 - <=C25	EN 16995:2017	2,0	mg/kg	<2,0
MOSH: > C25 - <=C35	EN 16995:2017	2,0	mg/kg	<2,0
MOSH: > C35 - <=C40	EN 16995:2017	2,0	mg/kg	<2,0
MOSH: > C40 - <=C50	EN 16995:2017	2,0	mg/kg	<2,0
MOSH (C10-C50): Total	EN 16995:2017	2,0	mg/kg	<2,0
MOAH: => C10 - <=C16	EN 16995:2017	1,0	mg/kg	<1,0
MOAH: > C16 - <=C25	EN 16995:2017	1,0	mg/kg	<1,0
MOAH: > C25 - <=C35	EN 16995:2017	1,0	mg/kg	<1,0
MOAH: > C35 - <=C50	EN 16995:2017	1,0	mg/kg	<1,0
MOAH (C10-C50):Total	EN 16995:2017	2,0	mg/kg	<2,0

* No analyte at a content above the limit of Quantification was detected.

**LOQ — limit of quantification.

This certificate is electronically signed and stamped.

DATED: 15th of MARCH, 2024

For and on behalf of CISS GROUP Ukraine LLC

Registered Superintendent and Surveyor Member of FOSFA

