

	Sunflower oil		
Technical data sheet	20/1/2020	Version 1.01	Page: 1 of 2

IDENTIFICATION:

Product name:	Sunflower oil
Ingredients:	100 % Sunflower oil (<i>Helianthus annus L.</i>)
Product description:	Crude oil from Sunflower extraction(<i>Helianthus annus L.</i>).
Sunflower Origin:	Europe, Black sea (Bulgaria, Moldavia, Rumania, Ukrania), Argentina
OGM:	NO OGM
Aplications:	Animal feed

PHYSICOCHEMICAL CHARACTERISTICS:

Parameter	Units	Max. Perm.	Method
Water, volatile materials and impurities	%	≤0,5	NF EN ISO 662/663
Acidity (% Oleic Acid)	%	<3	NF EN ISO 660
Hexane	mg/Kg	≤1000	NF EN ISO 9832
Phosphorus	mg/Kg	≤300	NF T 60-227
Waxes	mg/Kg	≤700	CPG / GC
Fatty acids (%)	Carbon	Max. Perm.	Method
Miristic	C 14 : 0	≤0,2	Gas Chromatopgraphy NF EN ISO 5508 NF EN ISO 5509
Palmitic C 16:0	C 16 : 0	5-7,6	
Palmitoleic C 16:1	C 16 : 1	≤0,3	
Stearic C 18:3	C 18 : 0	2,7-6,5	
Oleic C 18:1	C 18 : 1	14,0-39,4	
Linoleic C 18:2	C 18 : 2	48,3-74,0	
Linolenic C 18:3	C 18 : 3	≤0,3	
Arachidic C 20:0	C 20 : 0	0,1-0,5	
Gadoleic C 20:1	C 20 : 1	<0,5	
Behenic C 22:0	C 22 : 1	0,3-1,5	

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Technical data sheet	20/1/2020	Version 1.01	Page: 2 of 2

CONTAMINANTS

Analysis	Unitats	Límits	Method
Heavy metals¹: -Cadmium (Cd) -Arsenium (As) -Lead (Pb) -Mercury (Hg) -Fluorine (Mg)	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	≤ 1 ≤ 10 ≤ 150 ≤ 0,1 ≤ 1	NF EN 14084 NF EN 13805 NF EN 13806
Pesticide residues²: -Organofosforated -Organochlorines -Pyrethroids	mg/Kg mg/Kg mg/Kg	< LMR < LMR < LMR	Gas chromatography + specific detection ECD-NPD
Dioxines y PCB^{1 & 2}: -Sum of dioxin and dioxin-like PCBs (OMS-PCDD / F-PCB-TEQ) -Sum of dioxins (OMS-PCDD / F-TEQ) -Sum of 6 indicator PCB → Use in refining for human nutrition → Use in Animal feed	pg/Kg pg/Kg µg/Kg ng/Kg	≤ 1,25 ≤ 0,75 ≤ 10 ≤ 40	
Nitrites (in Sodium Nitrites)²:	mg/Kg	≤15	

1 In compliance with regulations CE 1881/2006 and its subsequent modifications

2 In compliance with directive 2002/32 y subsequent modifications

PACKAGING

Containers type:	Trucks 25 tons
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MICROBIOLOGY

Oil is an anhydrous product that does not allow bacterial proliferation.
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PRESERVATION

Storage conditions:	Oil is an anhydrous product that does not allow bacterial proliferation.
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OTHERS

Kosher Certifi	YES
Halal Certifica	YES