

031899

**Delta Wilmar**

**Quality certificate**  
 № 19064888 p from 13.11.2023 y.

Supplier: LLC "Delta Wilmar Ukraine"  
 Product: SUNFLOWER OIL REFINED DEODORIZED WINTERIZED MARK P  
 Date of production: 10-11.11.2023;  
 Batch number (L): L582  
 Volume 1 piece: 5L  
 Part number: 080000307095  
 Car number: AI9418KX / AI7827XK  
 Sample date: 10.11.2023  
 Shelf life of a product: Store in closed dark rooms at a temperature from 0 °C to 30 °C - 24 months

Consignee: S.R.L. "MASTER-SHEF" MD-3100, Moldova, mun. Balti, 9, str. Plopiilor str-la

Quality Score:

Organoleptic parameters:

Taste and smell: taste of impersonal oil, odorless

Transparency: transparent without siege

Physical-chemical data:

#	Parameters	Units	Standard method	Regulations	Result
1	Acid Value	mg KOH/g	DSTU 4350:2004	Not more than 0,5	0,09
2	Peroxide Value	1/2O mmol/kg	DSTU EN ISO 3960:2019	Not more than 10,0	0,5
3	Color by Lovibond	uni of red	DSTU 4568:2006	-	1,4
4	Iodine value	g I2/100 g	DSTU EN ISO 3961:2019	125,0 - 145,0	127,8
5	Mass fraction of moisture and volatile matters	%	DSTU ISO 662:2004	Not more than 0,1	0,02
6	Mass fraction of non-fatty impurities	%	DSTU EN ISO 663: 2019	Not allowed	Absence
7	Mass fraction of phosphorus-containing substances in terms of steoroleolecitin	%	DSTU 7082:2009	Not allowed	Absence
8	Sum of dioxins and dioxin-like PCB (WHO-PCDD/F-TEQ)	pg/g	Calculation WHO 2005 (s. Anm.)	Not more than 1.25	0.303*
9	Erucic acid	g/kg	DSTU ISO 5508:2001	Not more than 20	0
10	Level of glycidyl fatty acid ecters	µg/kg	MP-02152-NL ISO/DIS 18363-4/AOCS Cd 29d	Not more than 1000	150*
11	3-MCPD	µg/kg	MP-02152-NL ISO/DIS 18363-4/AOCS Cd 29d	Not more than 1250	110*
12	Heavy metals (lead Pb)	mg/kg	MP-01445-NL in house method ICP-MS	Not more than 0.10	0.05*
13	Sum of dioxins (WHO-PCDD/F-TEQ)	pg/g	Calculation WHO 2005 (s. Anm.)	Not more than 0.75	0.164*
14	Sum of PCB28, PCB 52, PCB101, PCB138, PCB153, and PCB 180 (ICES-6)	ng/g	Calculation ICES-6	Not more than 40.00	0.8*
15	benzo(a)pyrene	µg/kg	MP-01445-NL in house method ICP-MS	Not more than 2.00	0.1*
16	Sum of Benzo(a)pyrene, Benzo(a)anthracene, benzo(a)fluoranthene and chrysene	µg/kg	MP-01445-NL in house method ICP-MS	Not more than 10.00	<1.0*

\*data according to Dr. A.VERWEY B.V. (ORDER 681458, date 09/02/2023)

This document is issued in compliance with the food safety and quality requirements established by the EU legislation

Product conform: DSTU 4492:2017 Sunflower oil, Technical conditions

Laboratory supervisor

Devneka O.B.

