



huiles & condiments

## TECHNICAL SPECIFICATIONS: Sunflower oil

- **PRODUCT TRADE NAME:** Refined and winterized sunflower oil
- **TRADEMARK:** DOCILE
- **DEGREES OF ACIDITY:** < 0,20°C MAX
- **COMPOSITION (INGREDIENTS) :** Refined and fried sunflower oil and dimethylpolysiloxane (E-900).
- **DESCRIPTION:** Refined oil obtained from sunflower seeds (*Helianthus annuus*). The oil is white, cooled, and deodorized.
- **REGULATORY REFERENCE:** The product quality complies with the requirements of the DSTU 4492:2017 standard "Sunflower Oil. Specifications" (Ukrainian national standard).
- **ORGANOLAPTIC CHARACTERISTICS:**
  - Appearance: clean and transparent at a temperature of 216°C
  - Color: pale yellow
  - Odor and flavor: normal, with its own characteristic aromas, without signs of rancidity.
- **ASPECIFIC ANALYSIS:**
  - Peroxide index: 5 mqO<sub>2</sub>/kg max
  - Color: Lovibond, yellow 25 maximum, red 2.5 maximum, blue 0.1 maximum
  - Soap: negative
  - Cold: negative
  - Iodine index: 78 min, 141 max
  - Refractive index: 1.461 min, 1.471 maximum
- **FATTY ACID COMPOSITION %:**
  - Saturated:
    - C12:0 Lauric 0.1 Max
    - C14:0 Myristic 0.1 Max
    - C16:0 Palmitic 2.6 min, 7.6 Max
    - C17:0 Margaric 0.2 Max
    - C18:0 Stearic 2.1 min, 6.5 Max
    - C20:0 Arachidic 0.5 Max
    - C22:0 Behenic 1.6 Max
    - C24:0 Lignoceric 0.5 Max
  - Monounsaturated::
    - C16:1 Palmitoleic 0.3 Max
    - C17:1 Heptadecenoic acid 0.1 Max
    - C18:1 Oleic 14.0 min, 90.7 Max
    - C20:1 Gadoleic 0.5 Max



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- Polyunsaturated:
  - C18:2 Linoleic 2.1 min, 74 Max
  - C18:3 Linolenic 0.3 Max
- Saturated fatty acids in position 2 of triglycerides: 1% Max.

• **STEROL FRACTION COMPOSITION %:**

- Cholesterol: 0.5 Max
- Brassicasterol: 0.2 Max
- Campesterol: 5 min, 13 Max
- Stigmasterol: 4.5 min, 13 Max
- Beta-sitosterol: 42 min, 70 Max
- 5-Avenasterol: 1.5 min, 6.9 Max
- Stigmasterol: 6.5 min, 24 Max
- 7-Avenasterol: 3 min, 9 Max
- Other sterols: 9.5 Max
- Total sterols: 1700 ppm min, 5200 ppm Max

• **CONTAMINANTS:**

- Sum of dioxins (PCDD/F-WHO TEQ): 0.75 pg/g lipid Max
- Sum of dioxins and dioxin-like PCBs (WHO PCDD/FPCB TEQ): 1.25 pg/g fat Max
- Sum of PCB28, PCB52, PCB101, PCB138, PCB153, and PCB180 (ICES-6): 40 ng/g Max fat
  
- Benzo(a)pyrene: 2.0 ppb Max
- Sum of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, and chrysene: 10 ppb Max
  
- Lead: 0.1 ppm Max
- Iron: 3.0 ppm Max
- Copper: 0.1 ppm Max

• **GENETICALLY MODIFIED ORGANISMS:**

- It does not contain or is composed of GMOs.
- It has not been produced from GMOs and does not contain ingredients derived from these organisms.

- **STORAGE:** Recommended storage temperature: 25°C. Ambient temperature, closed container.

- **CONSUMERS:** Special catering / high yield

- **PACKAGING:**

- 5L PET bottle
- 10L PET bottle
- 25L plastic bottle
- 1000L plastic container

## FATTY ACID COMPOSITION:

Name and Unit of Measurement for Test Elements	Reference Value	Tested Value
C 16:0	5.0 - 7.6	6.9
C 18:0	2.7 - 6.5	3.9
C 18:1	14.0 - 39.4	27.5
C 18:2	48.3 - 74.0	60.2
C 20:0	0.1 - 0.5	0.30
C 22:0	0.3 - 1.5	0.80