

# KARTA TECHNICZNA / TECHNICAL DATA SHEET

Dokument opracowany w formacie Ecoflores na podstawie specyfikacji źródłowej dostawcy.

## 1. IDENTYFIKACJA PRODUKTU / PRODUCT IDENTIFICATION

Pozycja / Item	Informacja / Information
Product / Produkt	Laurus Nobilis Fruit Oil / Olej laurowy
CAS-registration number (EU)	8007-48-5
INCI (EU) / botanical name	LAURUS NOBILIS FRUIT OIL
EC# (EINECS / ELINCS)	273-313-5
Dostawca dokumentu / Supplier in Ecoflores format	Ecoflores Krzysztof Magdij, ul. Waksmundzka 34, 34-400 Nowy Targ, Poland

Definition: These specifications are valid for the specifically mentioned vegetable fats and fixed oils only. They are hereinafter referred to as 'substance' as a singular or 'substances' as a plural.

## 2. PESTYCYDY / PESTICIDES

In conventional foodstuffs: in accordance with Regulation (EC) No. 396/2005 on maximum residue levels of pesticides in or on food and feed. The processing factors must be considered.

## 3. AFLATOKSYNY, METALE CIĘŻKIE, DIOKSYNY I PCB / AFLATOXINS, HEAVY METALS, DIOXINS AND PCB

Parametr / Parameter	Specyfikacja / Specification
Aflatoxins, Total (B1, B2, G1, G2)	≤ 4.0 µg/kg
Pb (Lead)	≤ 0.100 mg/kg
Cd (Cadmium)	No specific maximum level for oils and fats within the EU
Hg (Mercury)	No specific maximum level for oils and fats within the EU
Sum of dioxins (WHO-PCDD/F-TEQ)	≤ 0.75 pg/g fat
Sum of dioxins and dioxin-like PCBs (WHO-PCDD/F-PCB-TEQ)	≤ 1.25 pg/g fat
Sum of 6 non dioxin-like PCB	≤ 40 ng/g fat

Aflatoxins, dioxins and PCB values are specified for foodstuffs according to Regulation (EU) 2023/915 repealing Regulation (EC) No. 1881/2006 and according to Regulation (EU) 2024/1756 amending and correcting Regulation (EU) 2023/915. The maximum level refers to the raw material from which the substance originates.

WHO-TEQs are calculated using WHO-toxic equivalency factors (WHO-TEFs) and expressed as WHO toxic equivalents (WHO-TEQs). Sum of non dioxin-like PCBs is PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180 (ICES-6).

## 4. WIELOPIERŚCIENIOWE WĘGLOWODORY AROMATYCZNE / PAH

Parametr / Parameter	Specyfikacja / Specification
Benzo[a]pyrene	≤ 2 µg/kg
PAH4 (Sum of benzo[a]pyrene, benzo[a]anthracene, benzo[b]fluoranthene and chrysene)	≤ 10 µg/kg

## 5. 3-MCPD I ESTRY KWASÓW TŁUSZCZOWYCH / 3-MCPD AND FATTY ACID ESTERS

Kategoria / Category	Maksymalny poziom / Maximum level
Category 1: oils and fats from coconut, maize, rapeseed, sunflower, soybean, palm kernel and olive oils and mixtures of oils and fats only from this category.	≤ 1.250 µg/kg
Category 2: other vegetable oils, including pomace olive oils, and mixtures of oils and fats only from this category.	≤ 2.500 µg/kg
Category 3: mixtures of oils and fats from categories 1 and 2.	According to mixture rules
Category 4: infant formulae/follow-on formulae/food for special medical purposes, placed on the market as powder.	≤ 80 µg/kg
Category 5: infant formulae/follow-on formulae/food for special medical purposes, placed on the market as liquid.	≤ 12 µg/kg

3-MCPD and 3-MCPD fatty acid esters are processing contaminants that can arise during the refinement process of vegetable oils. They are not added to the deodorizing or refining process but result from a reaction between glycerol and chloride. The contents depend on industrial procedure intensity and raw material.

## 6. ESTRY GLICYDYLOWE, MELAMINA, TLENEK ETYLENU / GLYCIDYL ESTERS, MELAMINE, ETHYLENE OXIDE

Parametr / Parameter	Specyfikacja / Specification
Glycidyl fatty acid esters, expressed as glycidol - vegetable oils and fats	≤ 1.000 µg/kg
Glycidyl fatty acid esters, expressed as glycidol - vegetable oils and fats for production of baby food	≤ 500 µg/kg
Melamine - food except infant formulae, follow-on formulae and young-child formulae	≤ 2.5 mg/kg
Melamine - placed on the market as liquid	≤ 0.15 mg/kg
Ethylene oxide and 2-chloro-ethanol - organic grades	MRL 0.01 mg/kg
Ethylene oxide and 2-chloro-ethanol - conventional grades	MRL 0.05 mg/kg

As far as stated in the source specification, the substances do not come into contact with melamine during production and no melamine was added during production. The level of ethylene oxide is the sum of ethylene oxide and 2-chloro-ethanol, expressed as ethylene oxide.

## 7. PLASTYFIKATORY / FTALANY / PLASTICIZERS / PHTHALATES

Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing Directives 80/590/EEC and 89/109/EEC is valid.

## 8. WĘGLOWODORY OLEJÓW MINERALNYCH / MOSH, MOAH, POSH AND PAO

Mineral oil hydrocarbons (MOH) comprise a wide range of chemical compounds obtained mainly from petroleum distillation and refining. MOH are essentially composed of MOSH (Mineral Oil Saturated Hydrocarbons) and MOAH (Mineral Oil Aromatic Hydrocarbons). In addition to MOSH and MOAH, POSH and PAO are also considered.

In August 2021, benchmark levels for certain vegetable oils and fats were published by the German Consumer Protection Consortium of the Federal States: 13 mg/kg for MOSH (C10-C50) and not quantifiable for MOAH (C10-C50). These values are recommendations and guidance for practical use, not threshold limit levels.

For MOSH, MOAH, POSH and PAO there are no specific maximum levels for foodstuff within the EU. The ALARA principle applies: contents of undesired substances should be as low as reasonably achievable. Maximum levels for MOSH/MOAH, POSH or PAO are not guaranteed and should be checked by the purchaser on a sample before each order if relevant for the intended use.

## 9. MIKROBIOLOGIA / MICROBIOLOGY

CFU = Number of colony-forming units.

Parametr / Parameter	Experience values, not binding	According to Eur. Ph. 9.0/5.01.08.00, 5.1.8, Cat. B
Total aerobic microbial count (TAMC), 30°C, ISO 4833-2	< 100 CFU/g	≤ 5 x 10 <sup>4</sup> CFU/g
Total combined yeasts/moulds count (TYMC), 25°C, § 64 LFGB L 01.00-37	< 100 CFU/g	≤ 5 x 10 <sup>2</sup> CFU/g
Enterobacteria, 37°C, BS ISO 21528-2:2004	< 100 CFU/g	-
Bile salts, Gram-negative bacteria	-	≤ 1 x 10 <sup>2</sup> CFU/g
Escherichia coli (E. coli), 44°C, ISO 16649-2	< 10 CFU/g	not detectable in 1 g
Presumptive Bacillus cereus, 30°C, ISO 7932	< 10 CFU/g	-
Salmonella, BAX® System PCR Assay, Attestation AFNOR QUA 18/03-11/02	not detectable in 125 g	not detectable in 25 g
Coagulase positive Staphylococcus, 37°C, EN ISO 6888-1	< 1 CFU/ml	≤ 1 x 10 <sup>2</sup> CFU/g

Due to the minimal content of moisture/residual moisture and of the water activity (aw) in the substances, no microorganisms can usually develop. However, limit values for microbiology cannot be specified; this information is non-binding.

## 10. DEKLARACJE / DECLARATIONS

Zakres / Scope	Deklaracja / Statement
Radiation treatment / CMR-Materials	The substances are not treated with ionizing radiation and contain no CMR hazardous substances that act carcinogenic, mutagenic or reprotoxic.
Nanotechnology	The substances were not manufactured using nanotechnology according to Regulation (EU) No 1169/2011.
GMO	The substances are GMO free and in accordance with Regulations (EC) No. 1829/2003 and No. 1830/2003. GMO labelling is therefore not necessary. According to Regulation (EC) No 2018/848 Art. 11, the use of genetically modified organisms and/or products derived from such organisms is prohibited in organic production.
REACH / SVHC	According to Regulation (EC) No 987/2008 amending Regulation (EC) No 1907/2006, these substances are exempt from the obligation to register in compliance with REACH. The substances do not contain SVHC.
Non-animal testing / Vegan / BSE / TSE	The manufacture and development of the substances do not and have not involved the use of any animal product, by-product, animal additives or derivatives. No animal testing for the substances has been conducted at the initiative of the company or on its behalf, or by parties under effective control. The substances are qualified as vegan and thereby no risk of BSE/TSE.
Solvents	The manufacture and development of the substances do not and have not involved the use of any solvents.

The word "animal" is understood as the entire Animal Kingdom, including all vertebrates and all multi-cellular invertebrates.

## 11. PRZECHOWYWANIE I OKRES TRWAŁOŚCI / STORAGE AND SHELF LIFE

Shelf life descriptions require proper storage in closed original sales containers. The substances are usually stable and can after opening the containers reach undamaged the best before date, but it is advised to cover the substances with an inert gas such as nitrogen.

Containers, especially opened, should be stored cool (preferably 10-20°C), tightly closed, protected from light, in a dry and well-ventilated place.

Low temperatures below 15°C can result in a simple form of winterization. The substance becomes opaque and settles at the bottom. Crystals, flakes and droplets are formed (natural crystallization). This flocculation of waxes, mucilages and high melting glycerides is a normal and reversible process. At room temperature the substance becomes clear again.

The separated harder fraction has a lower iodine value and therefore a higher melting point than the substance from which it was separated. The dissolution process can take a few days. Shaking small containers may support dissolution. Warming containers to max. 30°C can accelerate the process. The harder fraction must not be precipitated out or filtered off, since separated from the main fraction it cannot become a clear substance again.

## 12. OSAD / SEDIMENT

A small amount of sediment, also known as decantate or depot, remaining in sales units cannot be avoided and does not influence the quality of the substance. The sediment proves the naturalness of the substance and that it has not been refined. By shaking or stirring, the sediment dissolves in the substance, but the recommendation is to leave it at the bottom.

## 13. WAŻNE INFORMACJE / IMPORTANT INFORMATION

The analysis report and the Material Safety Data Sheet (MSDS) of the substance have to be observed. Due to these specifications, all former versions become invalid. In case of any contradiction between the German text and its English translation, only the German version is valid.

The information contained herein was created to the best knowledge and belief of the source issuer. It is intended for a professional audience only and not intended for the end user. It relates only to the substance designated and is not to be used in combination with any other material or in processing procedures. A legally binding assurance of certain characteristics or appropriateness in a specific context of use cannot be derived from the specifications. Specifications have to be validated by the customer and do not release the customer from testing substances immediately and fully upon receipt and from quality responsibility and duty of care when processing the substances.

Opracowano dla / Prepared for	Ecoflores
Produkt / Product	Laurus Nobilis Fruit Oil / Olej laurowy
Format dokumentu / Document format	Ecoflores Technical Data Sheet