

## Mixed Tocopherols

## Advantiox 90 Non GMO

Product Code: 10120190

Version TGU

## Description

ADVANTIOX 90 Non GMO is a clear brownish red viscous oil with mild odor and taste characteristic of vegetable oil. It contains natural mixed tocopherols which are obtained from Non GMO sources and diluted to 90% with sunflower oil.

ADVANTIOX 90 Non GMO contains not less than 90% of total tocopherols of which not less than 80% are non-alpha tocopherols.

## Ingredients

- Natural mixed tocopherols: Active substance; vegetable; E 306.
- Sunflower oil: Carrier; vegetable.

## Product Specifications

## (Measured on each lot)

Total Tocopherols (%)	Min. 90.0	Acidity (ml 0.1 N NaOH/g)	Max. 1.0
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## Other Characteristics

## Additional descriptive data (Tests are run sporadically)

Viscosity (cP @60°C)	150 - 270	Specific rotation [alpha] 20°/D (°)	Min. +20
Relative density (20/20°C)	0.92 - 0.96	Gardner colour	Max. 14

## Microbiology

Total plate count (CFU/g)	Max. 1000	Salmonella (/25g)	Absent
Yeast and moulds (CFU/g)	Max. 100	Escherichia coli (CFU/g)	Max. 10
Coliforms (CFU/g)	Max. 10	Staphylococcus aureus (CFU/g)	Max. 10

## Contaminants

Aflatoxin B1 (µg/kg)	Max. 2.0	Cadmium (mg/kg)	Max. 0.20
Sum of Aflatoxins (B1, B2, G1, G2) (µg/kg)	Max. 4.0	Pesticide Residues (mg/kg)	Meets regulations
Benzo(a)pyrene (µg/kg)	Max. 2.0	Sulphated Ash (%)	Max. 0.10
PAH4 (µg/kg)	Max. 10.0	Sum of dioxins (WHO-PCDD/F-TEQ) (pg/g)	Max. 0.75
Organic Volatile Impurities USP	Passes	Sum of dioxins and dioxin like PCBS (WHO-PCDD/F-PCB-TEQ) (pg/g)	Max. 1.25
Heavy Metals as Pb (mg/kg)	Max. 10	Sum of PCB28, PCB52, PCB101, PCB138, PCB153 & PCB180 (ICES-6) (ng/g)	Max. 40.0
Arsenic (mg/kg)	Max. 0.10		
Lead (mg/kg)	Max. 0.10		
Mercury (mg/kg)	Max. 0.10		

## Use Information

Used as a natural antioxidant in food and pharmaceutical industries.

Tocopherols dissolve very well in oils and therefore shall be incorporated into the oil phase prior to the emulsification process. Depending on the oil the use level shall be between 0,04 - 0,16 % relative to fat content.

We suggest to carry out tests at different concentrations to determine most appropriate level for each specific case.

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## Source and Manufacturing

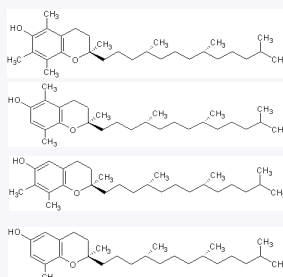
ADVANTIOX 90 Non GMO is produced in a non-chemical, purely physical process under GMP, Codex Alimentarius conditions from Non GMO sources. FSSC 22000 certified. As a member of the round table on responsible soy (RTRS), Advanced Organic Materials thereby is fully committed to the principles of environmental responsibility and good agricultural practices. In addition, our raw materials are sourced from certified NON-GMO sources following the guidelines of our IP programs to avoid contamination with GMO materials during storage, transport, and production. These principles safeguard the high quality of ADVANTIOX 90 Non GMO.

## Additional Ingredient Statements

Product is BSE/TSE free, Ethanol free, and Residual Solvent free. It does not require labeling declaration as being potential allergen. It does not contain palm oil and it is not palm oil derived. No animal or animal derivatives are used. It complies with Nagoya protocol.

This product is PCR negative. The product is GMO-free according to Eurofins IP Trust Programme V6.

## Chemical Composition

d- $\alpha$ -Tocopherol (%): 8 - 18d- $\beta$ -Tocopherol (%): 1 - 4d- $\gamma$ -Tocopherol (%): 50 - 56d- $\delta$ -Tocopherol (%): 19 - 25C<sub>29</sub>H<sub>50</sub>O<sub>2</sub> MW 431C<sub>28</sub>H<sub>48</sub>O<sub>2</sub> MW 417C<sub>28</sub>H<sub>48</sub>O<sub>2</sub> MW 417C<sub>27</sub>H<sub>46</sub>O<sub>2</sub> MW 403

Slight variations of typical composition due to variability of vegetable oil feedstocks from tocopherols origin can occur.

## Solubility

Soluble in oils and fats. Insoluble in water. Sparingly soluble in ethanol, miscible with organic solvents.

## Packaging and Storage

Available in 9 kg & 18 kg plastic jerrycans, or 190 kg metal drums.

ADVANTIOX 90 Non GMO shall be stored in sealed containers, at room temperature and dry conditions, given that the product is sensitive to light, oxygen, high temperatures or alkaline environment. Keep container tightly closed; once opened use content quickly.

If stored appropriately in unopened containers ADVANTIOX 90 Non GMO has a shelf life of 36 months.

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## Regulatory Information

ADVANTIOX 90 Non GMO meets the Monograph requirements of the current National Formulary (NF, Tocopherol Excipient) and USP-FCC (RRR-Tocopherols, concentrate, mixed, low alpha type); as of those of the European Community (E306, Tocopherol rich extract) and JECFA (INS 307b, Mixed Tocopherols Concentrate).

The U.S. FDA has recognized tocopherols as safe (GRAS) as a nutrient and as preservative (21 CFR, Part 182.8890 & 182.3890); and are GRAS exempt for the requirement for pre-market approval (21 CFR, Part 190.36) for certain food categories.

EU chemical legislation (Reg. EC 1881/2006).

Kosher and Halal certified.

Please ask for our Regulatory statement for further information on the global registration status of the product.

## Nutritional Information

Calories (kcal/100g)	81	Sodium (mg/100g)	0.3
Total Carbohydrate (%)	0	Potassium (mg/100g)	Max. 0.5
Protein (%)	0	Calcium (mg/100g)	0
Total fat (%)	9	Lead (mg/100g)	0
Dietary Fiber (%)	0	Sugars / Added Sugars	0 / 0
Humidity (%)	0.1	Starch	0
Ashes (%)	0	Cholesterol (mg/100g)	0
<u>Fatty Acids</u>		Vitamin A	0
Saturated (%)	1.1	Vitamin C	0
Monounsaturated (%)	1.9	Vitamin D	0
Polyunsaturated (%)	6.0	Vitamin E (mg/100g)	Min. 8000
Trans Fat (%)	0	Other, Tocopherols (%)	91

## Overview

- Ingredients Natural Mixed Tocopherols E306; Sunflower oil
- Appearance: Clear brownish red viscous liquid
- Function: Antioxidant
- Assay Min. 90% active
- Origin: Vegetable
- Use level 0,01 - 0,16%
- Regulatory Status Europe, US, Japan, China, Australia, Canada
- Certifications: FSSC 22000, GMP+, Soft IP, Kosher, Halal
- Shelf life: 36 months

## DISCLAIMER

This Product Data Sheet contains information based on our laboratory analysis. Advanced Organic Materials S.A. assumes no responsibility with regards to the suitability of the products for any specific purposes intended by the user. Recommendations for use and application of the product are given for information purposes. These suggestions do not release customers for conducting the necessary tests as suitability of the product is dependent on the characteristics of the intended process. The user of the product is solely re-sponsible for compliance with all laws and regulations applied to the use of the product, including intellectual property rights of third parties.

The information represent typical values, analytical methods are available at customers request.