



VITAPHEROLE® ORG

Organic Vitamin E



[www.vitaenaturals.com](http://www.vitaenaturals.com)

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C/ Gutenberg • Parc. 356 • Políg. Ind. Torrehierro  
45614 Talavera de la Reina. Toledo. Spain  
ph: +34 925 851 013 • fax +34 925 851 021  
e-mail: [commerce@vitaenaturals.com](mailto:commerce@vitaenaturals.com)

 VitaNaturals  
MANUFACTURERS OF WELLNESS

# VITAPHEROLE® ORG

## Organic Vitamin E

Vitapherole® E and Vitapherole® T are certified by ECOCERT for the production of organic food processed used in organic farming. Vitae Naturals' products are processed and marketed in an appropriate way for organic production under Regulation EC N° 834/2007, 889/2008 (annexes I and II) and NOP (National Organic Program).

### VITAPHEROLE® E ORG

**Vitapherole® E ORG** is natural mixed tocopherols extracted from natural sources as sunflower oil, which is rich in RRR- $\alpha$ -tocopherol, the highest bioavailable form and the most abundant in the human body.

RRR- $\alpha$ -tocopherol (Vitamin E) is long recognized as the body's major lipid soluble antioxidant, and is fundamental in maintaining the integrity and functionality of the cellular membranes of all cells in human body. As an antioxidant, Vitamin E acts within cell membranes, protecting unsaturated fatty acids from oxidation and fights the damage caused by free radicals, like cigarette smoke, UV light, and environmental pollution.

Vitamin E could be added to foods to fortify them such as soft drinks, cereals, dairy spreads, etc. and food supplements. The recommended daily intake of vitamin E is around 15-20 mg  $\alpha$ -TE.

### VITAPHEROLE® T ORG

**Vitapherole® T ORG** is natural mixed tocopherols (mixed tocopherols) extracted from soy oil are riched in  $\delta$  and  $\gamma$  tocopherol. They protect fats and oils from oxidation and extends product's shelf life.

#### How does **Vitapherole® T ORG** work?

Oxidative rancidity is consequence of polyunsaturated fatty acids oxidation, and first compounds generated from primary oxidation are hydroperoxides, which polymerize and decompose forming secondary oxidation products such as aldehydes, ketones and acids with less molecular weight. This process is accelerated under specific conditions as light, temperature, humidity, etc.

Oxidative volatile compounds are responsible for flavors, off odors like rancid and undesirable tastes in foodstuffs.

Mixed tocopherols work in two different ways, preventing auto-oxidation process by reducing the rate of chain initiation and extending induction period time.

Food Application:	
Fats/oils/spreads/sauces/fish oils/oleoresins	<b>Vitapherole® T-50 ORG</b> <b>Vitapherole® T-70 ORG</b>
Meat/poultry/fish/omega 3 oils	
Nuts	
Bread/cereal/baked goods	

#### **Vitapherole® T ORG** advantages:

- Effective at very low concentrations.
- Does not effect either flavor, color or odor to final food product.
- Low volatility at high temperatures.
- Foods are protected during and after production.
- Allow you to use all natural ingredients and ORG statement.

**Vitapherole® T ORG** should be added directly to fats and oils as early as possible in the processing steps. Quantity added depends on oils or fats content and it can vary from 0,03% to 0,1%.

Vitae Naturals evaluates tocopherols in customer's fats and oils doing several tests to determine the most efficient quantity.

Average tocopherol content of edible plant oils:

Oils	Tocopherols (%)				
	$\alpha$	$\beta$	$\gamma$	$\delta$	
Soybean	6,50%	1,30%	69,12%	23,07%	Vitapherole®T
Sunflower	89,19%	-	9,34%	1,47%	Vitapherole®E

Source: EFSA Journal (2008) 640

### COSMETICS

Vitapherole® E and Vitapherole® T range are approved materials to be used in natural and organic cosmetics by ECOCERT GREENLIFE and are conformed to Natural and Organic Cosmetics ECOCERT/COSMOS Standards. They have been included in ECOCERT/COSMOS ingredients online database of natural raw materials approved.

Vitae Naturals' **Vitapherole® ORG** range is produced under FSSC 22000 and applicable regulations.