

Naturall-eTM Organic SSO-T70

(Natural Mixed Tocopherol 70% – Standardized with Sunflower Oil)

TECHNICAL DATA SHEET

DESCRIPTION

Naturall-e Organic SSO-T70 is a clear yellow to brownish red viscous oil with mild odor and characteristic taste of Sunflower oil. It contains mixed tocopherol obtained from Non-GMO soya oilseed source which has been standardized with edible sunflower oil, which is 100% Non-Allergen & of Non-GMO origin. It is suitable for use in Organic food and cosmetics.



INGREDIENTS

Mixed Tocopherol: Min. 70%
Organic Sunflower Oil

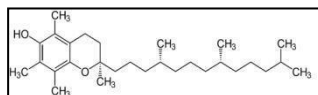
ASSAY

Naturall-e Organic SSO-T70 contains not less than 700 mg/g of total Tocopherol molecules of which minimum 80% are Non-Alpha Tocopherol molecules (Beta, Gamma & Delta Tocopherols) which shows highest Antioxidant activity. Total Tocopherol content is 70%.

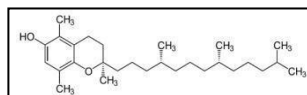
d- α -Tocopherol (%)	d- β - γ -Tocopherol (%)	d- δ -Tocopherol (%)
5-20	50-75	10-30

(Values are on 100% Basis of total Tocopherol content)

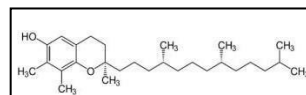
Slight variations in typical composition may occur due to variability of vegetable oilseed stocks



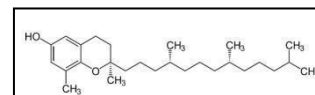
d- α -Tocopherol (C₂₉H₅₀O₂)
Molecular Weight 430.71
CAS No. 59-02-9



d- β -Tocopherol (C₂₈H₄₈O₂)
Molecular Weight 416.69
CAS No. 16698-35-4



d- γ -Tocopherol (C₂₈H₄₈O₂)
Molecular Weight 416.69
CAS No. 54-28-4



d- δ -Tocopherol (C₂₇H₄₆O₂)
Molecular Weight 402.66
CAS No. 119-13-1

CURRENT EU LEGISLATION COMPLIANCE

- 1: EC REG. EU 835/2011 2: EC REG. EU 1881/2006 3: EC REG. EU 231/2012 4: EC REG. EU 396/2005 5: EC REG. EU 2073/2005
6: EC REG. EU 1259/2011 7: EC REG. EU 1169/2011 8: EC REG. EU 834/2007 9: EC REG. EU 889/2008

PRODUCT CHARACTERISTICS

Quality Control Data (Measured on each Lot)	
Identification	
A (As per FCC)	Bright Red to Orange Color Develops
B (By GC)	Retention time of the third major peak
Assay (By GC)	
Total Tocopherol	≥70%
Non-Alpha Tocopherols	≥56%
Impurities	
Inorganic Impurities-Lead (As per FCC)	≤1.0 ppm
Specific Tests	
Acidity (ml 0.1N NaOH/g) (As per FCC)	Max. 1.0 ml
Specific Rotation * α_D^{25} (As per FCC)	NLT +20°

Additional Technical Data (Measured on each Lot)	
Delta (δ)	10-30%
Beta + Gamma ($\beta + \gamma$)	50-75%
Alpha (α)	5-20%
Relative Density (20/20°C)	0.90 - 0.96

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Contaminants*		Microbiology*	
Heavy Metals (ppm)	≤ 5.0	Total plate count (cfu/g) ⁵	≤ 1000
Arsenic (ppm) ^{2,3}	≤ 0.2	Yeast & Moulds (cfu/g) ⁵	≤ 100
Lead (ppm) ^{2,3}	≤ 1.0	Coliforms (cfu/g) ⁵	≤ 10
Mercury (ppm) ^{2,3}	≤ 0.1	Salmonella (cfu/10g) ⁵	Negative
Cadmium (ppm) ^{2,3}	≤ 0.2	Escherichia coli (cfu/10g) ⁵	Negative
Pesticide Residues (ppm) ⁴	≤ 0.01	Staphylococcus aureus (cfu/10g) ⁵	Negative
Sulphated Ash (%) ³	≤ 0.1		
Benzo (a) pyrene (ppb) ¹	≤ 2.0		
Sum PAH(4) (ppb) ¹	≤ 10.0		
Dioxins*			
Sum of dioxins (WHO-PCDD/F-TEQ) (ppt) ^{2,6}		Max. 0.75	
Sum of dioxins and dioxin like PCBs (WHO-PCDD/F-PCB-TEQ) (ppt) ^{2,6}		Max. 1.25	
Sum of PCB28, PCB52, PCB101, PCB153 & PCB180 (ICES-6)(ppb) ^{2,6}		Max. 40.0	

* All contaminants/ Microbiology/ Dioxins are checked for every 5 lots of finished product on the basis of composite sample.

STANDARD

Naturall-e Organic SSO-T70 meets the Monograph requirements of the current National Formulary (NF, Tocopherol Excipient) and FCC (RRR-Tocopherols, concentrate, mixed, low alpha type) requirements as of those of the European Community (E 306, Tocopherol rich extract). Produced according to GMP, Codex Alimentarius, Non-GMO Cert ID, certified Kosher and Halal. 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 170.36) for certain food categories. Naturall-e SSO-T70 is TSE & BSE free, does not contain any meat or animal derived products, Gluten, Lactose or Alcohol and has not been irradiated. **It does not contain any allergen and requires no allergen labeling declaration.**

SOLUBILITY

Naturall-e Organic SSO-T70 is virtually insoluble in water. It is soluble in ethanol, acetone, chloroform, ether, lipophilic solvents, oils & fats.

STORAGE CONDITION

Naturall-e Organic SSO-T70 must be stored in closed containers at ambient temperature in dry condition. Avoid over exposure to sunlight, alkaline environment or high temperature.

SHELF LIFE

36 Months from manufacturing date in original packaging.

PACKAGING

Naturall-e Organic SSO-T70 is available in Food Grade 1Kg Aluminum bottle, 5/ 25/190 Kg HDPE Drum and 900 Kg IBC.

CERTIFICATIONS



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NUTRITIONAL INFORMATION

Energy From Fat (kcal/100g)	182	Dietary Fiber (%)	0
Total Carbohydrate (%)	0	Humidity (%)	0
Protein (%)	0	Ashes (%)	0
Saturated (%)	3.7	Sugars	0
Monounsaturated (%)	5.2	Starch	0
Polyunsaturated (%)	6.8	Cholesterol (mg/100g)	0
Trans Fat (%)	0	Calcium (mg/100g)	0
Total fat (%)	15.7	Vitamin C (mg/100g)	<0.1
Sodium (mg/100g)	0.7	Vitamin E (IU/100g)	Min. 5215
Potassium (mg/100g)	<0.5	Tocopherols (%)	Min. 70

APPLICATIONS

Naturall-e Organic SSO-T70 is an excellent Natural Antioxidant which is widely used in Food, Nutraceutical, Healthcare, Cosmetic & Feed industry. It has high content of Beta, Gamma & Delta Tocopherol molecules which show highest Antioxidant property.

Naturall-e Organic SSO-T70 effectively fights oxidation process which is the main cause behind deterioration of processed food products. Used as Food Antioxidant in most of the food preparations, it prevents onset of Rancidity thus preserving their original taste, flavor, aroma, strength & overall quality.

It is also used In Nutraceutical applications where Antioxidant & Nutritional properties of Vitamin E are desired. As it contains all isomers of Vitamin E, namely Alpha, Beta, Gamma & Delta Tocopherols, it provides comprehensive nutritional benefits.

Naturall-e Organic SSO-T70 is widely used in cosmetic applications like creams, lotions, moisturizers, shampoos, etc. due to its strong antioxidant & nourishing properties. It effectively prevents skin & hair from Free Radical damage. Also provides protection from harmful UV sunrays. Its skin rejuvenating properties makes it an ideal ingredient in many skincare formulations.

Dosage will depend on each particular product application. We suggest carrying tests at different concentrations to determine most appropriate level for each specific case.

Products containing Naturall-e Organic SSO-T70 can be labeled as containing **Natural Vitamin E**.

Disclaimer

This Product Data Sheet contains information based on our laboratory analysis at Matrix Fine Sciences Pvt Ltd, Paithan MIDC, Aurangabad, Maharashtra, India. We assume no responsibility with regards to the suitability of the products for any specific purposes intended by the user. Recommendations for use and applications of the product are given for information purpose only. 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 responsible 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.