

TECHNICAL DATASHEET

Cosphaderm® E-1000 NON GMO

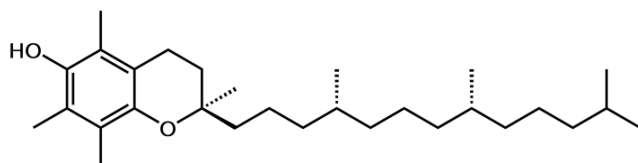
1.1 General information

Trade name:	Cosphaderm® E-1000 NON GMO	
Item no.:	07-001-xxxx	
Supplier:	Cosphatec GmbH Hopfenmarkt 33 20457 Hamburg Germany	
Chemical name:	[2R(4R*, 8R*)]-2,5,7,8-Tetramethyl-2-(4,8,12-trimethyltridecyl)chroman-6-ol	
Other names:	d-alpha-Tocopherol, Vitamin E	
INCI name:	Tocopherol or Tocopherol, Helianthus Annuus Seed Oil	
CAS No.:	d-alpha-Tocopherol	59-02-9
	Helianthus Annuus Seed Oil	8001-21-6
EINECS/ EC No.:	d-alpha-Tocopherol	200-412-2
	Helianthus Annuus Seed Oil	232-273-9
IECIC:	Tocopherol Helianthus Annuus (Sunflower) Seed Oil	

1.2 Product composition

INCI name	CAS No.	%
alpha-Tocopherol	59-02-9	min 67.1
Helianthus Annuus Seed Oil	8001-21-6	max 32.9

1.3 Chemical structure



Chemical structure of *alpha*-Tocopherol

1.4 Product short description

Cosphaderm® E-1000 NON GMO is a preparation containing at least 67.1 % *alpha*-Tocopherol solvated in sunflower oil. This product is of NON GMO quality, for which we confirm that there has been no contamination with genetically modified organisms, neither in the source material (soy bean), nor within production, packaging or transport.

Our tocopherol product Cosphaderm® E-1000 NON GMO can also be named Vitamin E, which is the general term for all tocopherols and their derivatives with the same level of biological activity as *alpha*-Tocopherol, which possesses the highest biological value.¹ Vitamin E, in its free alcohol form, is mainly used as an anti oxidation agent to stabilize formulations as well as raw materials. In application concentrations between 0.05 and 0.2 %, tocopherols (in a fat or oil media) are able to prevent the materials from destruction via undesirable oxidation reactions.² All formulations produced with Cosphaderm® E-1000 NON GMO may be labelled as “containing Vitamin E from a natural source”.

1.5 Application

Recommended concentration:	0.1 %
Conditions:	oil soluble
Hints:	add recommended concentration to the oil phase of your formulation

2.1 Specified data analyzed per batch

Appearance:	clear, amber to reddish viscous oil
Taste:	mild, characteristic
Odour:	typical vegetable oil
Tocopherol content (as d- <i>alpha</i> -Tocopherol):	min. 67.1 %
Colour:	max 12 Gardner units
Viscosity (60 °C):	90–180 cP

Specific gravity (25 °C):	0.93–0.95 g/cm ³
Acidity:	max 0.35 ml KOH 0.1 N/g
Benzo(a)pyrene:	max 2 ppb
Sum of Benzo(a)pyrene, Benzo(a)anthracene, Benzo(b)fluoranthene and Chrysene:	max 10 ppb

2.2 Specified data analyzed periodically

Microbial data:	Total Aerobic Count	max 1000	cfu/g
	Yeast and Moulds	max 100	cfu/g
	<i>E. coli</i>	none	cfu/g
	<i>Salmonella</i>	none	cfu/25 g
	<i>Lysteria monocytogenes</i>	none	cfu/10 g
	<i>Shigella</i>	none	cfu/10 g
	<i>Clostridium perfringens</i>	none	cfu/g
	<i>Staphylococcus aureus</i>	none	cfu/g
	<i>Enterobacteria</i>	max 100	cfu/g
Dioxins:	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 PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180 (ICES – 6):	40	ng/g fat

3.1 Physical and chemical properties

Molecular formula:	C ₂₉ H ₅₀ O ₂ (for the main component d- <i>alpha</i> -tocopherol)
Molecular weight:	430.71 g/mol (for the main component d- <i>alpha</i> -tocopherol)
Appearance:	clear, amber to reddish viscous oil
Odour:	typical vegetable oil
Potency:	min 1000 I.U./g
Specific Rotation:	min +24°
Boiling point:	>200 °C
Flash point:	>200 °C

pH:	-	
Solubility:	Soluble in oil and organic solvents	
Composition:	Total Tocopherols	min 70.0 %
	<i>alpha</i> -Tocopherol	min 67.1 %
	<i>beta</i> - and <i>gamma</i> -Tocopherol	0 – 1.0 %
	<i>delta</i> -Tocopherol	0 – 0.2 %
	Sunflower Oil	max 32.9 %

3.2 Packing and Storage conditions

Packing sizes:	Cosphaderm® E-1000 NON GMO is offered in 20 kg steel drums.
Storage conditions:	Cosphaderm® E-1000 NON GMO may oxidize upon exposure to air and light, resulting in gradual darkening. Nitrogen blanketing and protection from light, heat and alkaline environment are recommended. Shelf life 36 months from packaging date (unopened). Store tightly closed. Keep the product between 15 °C and 30 °C.
Shelf life:	At least 36 months if unopened and stored under proper conditions

4.1 Regulatory compliance

d-alpha-Tocopherol (CAS: 59-02-9) is included / listed in the following international inventories:

EINECS (Europe); TSCI (Taiwan); ENCS (Japan); KECI (Korea); IECSC (China); TSCA (USA); DSL (Canada); PICCS (Philippines); AICS (Australia); NZIoC (New Zealand)

Helianthus Annuus Seed Oil is included / listed in the following international inventories:

EINECS (Europe); TSCI (Taiwan); KECI (Korea); IECSC (China); TSCA (USA); DSL (Canada); PICCS (Philippines); AICS (Australia); NZIoC (New Zealand)

4.2 Regulatory status for cosmetic application

Product complies with Regulation (EU) No. 1223/2009 in all the defined requirements.

4.3 Additives

Product contains only the specified ingredients. No other substances like preservatives, antioxidants, fragrances, colorants or other are added.

4.4 Impurities

	Not expected*	Present [#]	ppm
BSE/TSE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Dioxin	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See above
Formaldehyde	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Gluten	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Lactose	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pesticides	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Phthalates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Residual solvents	<input type="checkbox"/>	<input checked="" type="checkbox"/>	hexane: < 1 methanol: < 10
Heavy metals	ppm		
	total	≤ 10	
	Arsenic (As)	≤ 1	
	Lead (Pb)	≤ 0.1	
	Mercury (Hg)	≤ 0.1	
	Cadmium (Cd)	≤ 0.1	

4.5 Allergens

Product does not contain any of the 26 allergenic flavors or fragrances listed in Regulation (EC) No. 1223/2009 Annex III.

4.6 VOC

Product does not contain any volatile organic compound.

4.7 CMR

Product is not rated as CMR (category 1A, 1B and 2) and does not contain any ingredient rated as CMR according to Regulation (EC) No. 1223/2009 in association with Regulation (EC) No. 1272/2008/EC.

4.8 SVHC

Product is neither listed as SVHC substances nor contains any material which is listed as SVHC substance.

4.9 Nanomaterial

Product is not embraced by article 16 Regulation (EC) No. 1223/2009.

4.10 Animal testing

The Cosphatec has not conducted any animal testing for cosmetic purpose since March 11th 2009.

4.11 Irradiation

Product has not been irradiated in any step of the entire production process.

4.12 Origin

Substances (INCI name)	Synthetic	Vegetal	Biotechnology
Tocopherol	<input type="checkbox"/>	<input checked="" type="checkbox"/> Name of the plant: Soya (<i>Glycine max</i>) Plant part used: Beans Origin: Europe, Asia, South America	<input type="checkbox"/> Microorganism used:

Helianthus Annuus Seed Oil	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Name of the plant: Sunflower (<i>Helianthus</i>) Plant part used: seeds Origin: Europe	Microorganism used:

4.13 GMO

The product is not subject to labelling according to Regulations (EC) No. 1829/2003 and 1830/2003.

4.14 Certifications

Halal

Kosher

Other Information

This information and our technical application advice are given to the best of our knowledge, but they are for information purposes only and given without responsibility. The advice doesn't exempt you from doing your own testing, particularly with regard to the qualification of our products for its intended processes and purposes. Application, use and handling of our products take place out of our control and are solely your responsibility. The sale of our products occurs according to our current general sales terms and delivery conditions.

* not expected to be present due to raw materials, production process and used equipment. Not regularly analysed.

#expected to be present due to raw materials, production process and used equipment. Periodically analysed.

¹ Rangarajan, Zatz, *J. Cosmet. Sci.* **1999**, *50*, 249-279.

² Raab, Kindl, *Pflegetkosmetik, ein Leitfaden*, 4th Ed., Wissenschaftl. Verlagsgesellschaft mbH, Stuttgart, **2004**, *Chapter 14.10.2*, pp. 260; Kindl, *PZ-Dermopharmazie* **1997**, *37*, issue 141, 4.