

TECHNICAL DATASHEET

Cosphaderm® EGCg ECONAT

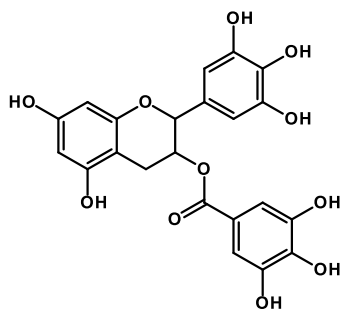
1.1 General information

Trade name:	Cosphaderm® EGCg ECONAT
Item no.:	07-004-xxxx
Supplier:	Cosphatec GmbH Hopfenmarkt 33 20457 Hamburg Germany
Chemical name:	5,7-Dihydroxy-2-(3,4,5-trihydroxyphenyl)chroman-3-yl 3,4,5-trihydroxybenzoate
Other names:	Epigallocatechin-3-gallate, EGCg, Tea Leaf Extract
INCI name:	Camellia Sinensis Leaf Extract
CAS No.:	84650-60-2
EINECS/ EC No.:	283-519-7

1.2 Product composition

INCI name	CAS No.	%
Camellia Sinensis Leaf Extract	84650-60-2	100

1.3 Chemical structure



Epigallocatechin-3-gallate

1.4 Product short description

Cosphaderm® EGCg ECONAT is a white, dry extract made from the high quality green tea leaves of *Camellia Sinensis*. This ingredient provides high levels of tea catechins, especially Epigallocatechin-3-gallate (EGCg), with levels of more than 90 %. It also contains negligible levels of caffeine.

It has been found that EGCg is the most effective among the tea catechins, displaying many beneficial effects for the body to promote and maintain health, including an antioxidant and anti-microbial activity. Latest research indicates that it also can prevent collagen breakdown and reduce the damage on skin from UV light sources. Another benefit is its ability to inhibit several types of matrix metalloproteinases (MMP). These factors make Cosphaderm® EGCg ECONAT a genuine anti-aging active ingredient, which protects the skin from damage and aging processes.

As it is common for active substances, the application concentration of Cosphaderm® EGCg ECONAT is comparatively low with values between 0.05 and 0.1 %, or even lower. If you are interested in more detailed information regarding the activity of Epigallocatechin-3-gallate, please refer to the literature data.¹

1.5 Application

Recommended concentration:	0.05-0.1 %
Conditions:	water soluble (up to 2 % at 20 °C)
Hints:	add recommended concentration to the water phase of your formulation

2.1 Specified data analyzed per batch

Appearance:	white to light brown fine powder
Particle Size:	100 % pass mesh 60
Bulk Density:	0.2 – 0.6 g/cm ³
EGCg Content	min 90 %
Loss on Drying:	max 5.0 %
Total Heavy Metals:	max 5.0 ppm
Lead, Arsenic:	max 0.5 ppm
Cadmium, Mercury	max 0.1 ppm

2.2 Specified data analyzed periodically

Microbial data:	Total Aerobic Count	max 1000	cfu/g
	Yeast and Moulds	max 50	cfu/g
	<i>E. coli</i>	none	cfu/g
	<i>Salmonella</i>	none	cfu/g
	<i>Staphylococcus</i>	none	cfu/g

3.1 Physical and chemical properties

Molecular formula:	C ₂₂ H ₁₈ O ₁₁ (Epigallocatechin-3-gallate)
Molecular weight:	458.4 g/mol
Appearance:	white to light brown fine powder
Odour:	characteristic
Melting point:	140 – 142 °C
Boiling point:	–
Flash point:	–
pH:	3.0 – 5.5 (2 % solution water)
Solubility:	Soluble in water and alcohol

3.2 Packing and Storage conditions

Packing sizes:	5 kg carton in a double PE film bag
Storage conditions:	Store at room temperature in a cool, dry place away from heat and direct light
Shelf life:	At least 36 month if unopened and stored under proper conditions

4.1 Regulatory compliance

The product contains the specified ingredient Camellia Sinensis Leaf Extract (CAS: 84650-60-2) is included/listed in the following international inventories:

EINECS (Europe); TCSI (Taiwan); IECSC (China); AICS (Australia); DSL (Canada); PICCS (Philippines); 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
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"/>	ethanol: < 10
Heavy metals	Please see section 2.1		

4.5 Allergens

Product does not contain any of the 26 allergenic flavours 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 with 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
Camellia Sinensis Leaf Extract	<input type="checkbox"/>	<input checked="" type="checkbox"/> Name of the plant: <i>Camellia Sinensis</i> Plant part used: leaves Origin: China	<input type="checkbox"/> 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

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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 *Histology and Histopathology* **2008**, April Issue, 487-496; *Food Chemistry and Toxicology* **2007**, December Issue, E-Publication; *Journal of Medical Food* **2007**, June Issue, 337-344; *Photodermatology, Photoimmunology and Photomedicine* **2007**, February Issue, 48-56; *Journal of Dermatological Science* **2005**, December Issue, 195-204.