

Carri-Active[®] Green Tea (EGCG)

Description

Carrier systems with the ability to transport actives into the skin are playing an important role in cosmetics already for a long time. The most well-known carrier systems belong to the group of liposomes or nanosomes-vesicles which consist of purified phospholipids from soya. Liposomes have an aqueous core whereas nanosomes internally consist of oil and lipophilic actives. Our new innovative delivery system has been developed together with company Sopharcos. CARRI-ACTIVE[®] have similar or even better properties compared to the familiar liposomes and nanosomes. In our CARRI-ACTIVE[®] we can encapsulate either hydrophilic substances of different molecular weights, or we can encapsulate lipophilic components. The carrier system was investigated ex-vivo and in-vivo on human skin and an improved penetration efficacy has been proved.

To ensure effectiveness of the cosmetic formulation, the actives have to be transported to the target site, mostly into the epidermis. CARRI-ACTIVE[®] Green Tea (EGCG) is a water-dispersed carrier system (water- in oil-in-water-emulsions) that contains 2 % Green Tea Extract (EGCG). Green Tea Extract (EGCG) is a physically purified natural green tea leaf extract with an EGCG content higher than 90 %.

Green tea is one of the most widely consumed beverages and has also gained importance in cosmetics and pharmaceuticals due to its high content of the polyphenol epigallocatechin gallate (EGCG). The instability and low bioavailability of the natural substance severely limit its potential application in the health sector such as e.g. for anti-ageing and anti-stress effects, anti-inflammation and against skin cancer. This encapsulation technology prevents color changes of the active ingredient and enabled an improved activity and bioavailability of EGCG.

Efficacy

- acts as an antioxidant
- reduces inflammations
- soothes sunburns
- helps to prevent wrinkles
- helps to prevent photo aging
- helps to maintain skin elasticity based on the collagen network
- stimulates proliferation and cell differentiation

Appearance

cream white, slightly viscous solution

INCI

Aqua, Glyceryl Citrate/ Lactate/ Linoleate/ Oleate, Ethyl Oleate, Epigallocatechin Gallate



Nature needs no cosmetics,
but cosmetics need nature

Carri-Active[®] Green Tea (EGCG)

Registration

CAS-No.
 Aqua.....7732-18-5
 Glyceryl Citrate/Lactate/Linoleate/Oleate.....
9174-23-9
 Pentylene Glycol.....5343-92-0
 Ethyl Oleate.....111-62-6
 Epigallocatechin Gallate.....989-51-5

EC-No.
 Aqua.....231-791-2
 Glyceryl Citrate/Lactate/Linoleate/Oleate.....
294-585-1
 Pentylene Glycol.....226-285-3
 Ethyl Oleate.....203-8889-5
 Epigallocatechin Gallate.....479-560-7

Preservatives / Stabilizers

preservative.....none
 stabilizer Pentylene Glycol.....5 %

Characteristics

content Epigallocatechin gallate.....~ 2 %
 pH value.....5.0 - 6.0
 mean particle size.....100 - 300 nm
 polydispersity index (PDI).....< 0.4

Application

daily cosmetics
 creams and lotions
 eye care
 face masks
 gels and ampoules
 after-sun products

Application concentration

skin care formulations.....1 - 3 %

Incorporation

Shake the dispersion before use!
 CARRI-ACTIVE[®] Green Tea (EGCG) can easily be incorporated into final formulation at 30 °C under stirring.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

CARRI-ACTIVE[®] Green Tea (EGCG) should be stored in original sealed containers in a dry and well-ventilated, cool place at temperatures between 2 - 8 °C. Brief exposure up to 40 °C possible.
 Exposure to UV-rays should be avoided.
 In sealed containers CARRI-ACTIVE[®] Green Tea (EGCG) have a stability of 9 months.