Selco®

Coenzyme Q10



Description

Coenzyme Q10 has a quinoid structure and is therefore also named Ubiquinone 50 or Ubidecarenone. Our Coenzyme Q10 is manufactured by a bacterial fermentation process and therefore considered to be natural Coenzyme Q10. Coenzyme Q10 is produced in the human body and is responsible for a wide-spread range of important biological activities. It is a lipophilic unique antioxidant and radical scavenger that inhibits lipid peroxidation, lipid and protein oxidation in skin cells and regenerates other antioxidants like tocopherol. It occurs in very low concentrations in nearly all organisms, and it is used in nutrition and pharmaceutical industry since many years due to its efficacy profile.

Not all functions of Coenzyme Q10 in the biological systems are known yet, but its multifunctional importance is undeniable. Coenzyme Q10 functions as an electron transfer agent in the respiratory chain. It's presence in Leucocytes, Keratinocytes, Fibroblasts protect these and all other cells against very active oxygen structures like superoxide, singulett-, oxygene- and hydroxyl-radicals, which are known to contribute to the process of aging and photoaging of the skin. As energy transfer agent and outstanding radical scavenger Coenzyme Q10 is known for its efficacy in heart therapy, neurodermatitis, psoriasis, paradonthosis, external substitution under stress, adipositas, immune assistance and recently against Parkinson's disease and breast cancer. In dermal application it functions as antioxidant acting in multiple ways to reduce the effects of environmental aggression to the skin, visible in the reduction of wrinkle depth and a decreased turnover time of epithelium.

Efficacy

Appearance

- acts as an antioxidant
- minimizes photo-aging
- reduces wrinkles and fine lines
- protects the skin from environmental damages
- minimizes cell stress
- enhances cell energy production and cell activity
- revitalizes the skin
- helps to maintain skin youth

yellow to orange crystalline powder

INCI

Ubiquinone

Registration

CAS-No	
EC-No	206-147-9

Raw material approved by ECOCERT GREENLIFE, conform to the COSMOS Standard.

Nature needs no cosmetics, but cosmetics need nature

Selco[®]

Coenzyme Q10 Preservatives / Stabilizers

none

Characteristics

content Coenzyme Q10	97.0 - 103.0 %
melting point	about 48.0°C
water content	<= 0.2 %
particle size>	90 % pass 80 mesh



coenzyme Q₁₀

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molecular formula..... $C_{59}H_{90}O_4$

Application

daily cosmetic products creams and lotions face masks gels and ampoules body care

Application concentration

skin care formulations.....0.01 - 0.2 %

Incorporation

Coenzyme Q10 is oil soluble. It is easily soluble in paraffin oil up to 1 % under stirring at about 50°C. Coenzyme Q10 is soluble in phenylethanol-1 up to 2 % under stirring at about 50°C. It is stable at 25°C for 110 days but degraded at temperatures above 45°C. It is not photo stable (33.5 % degradation after 1 month exposure to sunlight). Please avoid an alkaline pH.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Coenzyme Q10 should be stored in a dark place at temperatures between 10 - 25°C. Longer exposure to UV-rays should be avoided.

In closed original containers the shelf life is 36 months.

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