Selco

Resveratrol natural

Description

Resveratrol (3,5,4’-trihydroxy-trans-stilbene) is a stilbenoid and a type of natural phenol. It is commonly used as a dietary supplement and part of several ongoing medical studies. Resveratrol is produced in plants via the enzyme resveratrol synthase (stilbene synthase). Its immediate precursor is a tetraketide derived from malonyl CoA and 4-coumaroyl CoA. The latter is derived from phenylalanine. Resveratrol is a phytoalexin, a class of compounds produced by many plants when they are infected by pathogens or physically harmed by cutting, crushing, or ultraviolet radiation. In general, wines made from grapes of the Pinot noir and St. Laurent varieties showed the highest level of trans-resveratrol. Champagne and vinegar also contain appreciable levels of this active component.

Resveratrol has a number of scientifically proven health promoting properties associated with a positive effect on the cardiovascular system, lowering the concentration of low-density lipoprotein, and the ability to inhibit the cyclooxygenases activity. It shows antiangiogenic, anti-inflammatory, antioxidant, and antimicrobial properties. Resveratrol nowadays represents one of the most popular ingredients in high quality cosmetic formulations, mainly due to its proven ability to penetrate the skin barrier and its significant impacts on skin aging. Formulations containing resveratrol can stimulate the proliferation of fibroblasts and contributing to the increase in the concentration of collagen III. Resveratrol has an affinity for the estrogen protein receptors (both ERα and ERβ), thereby contributing to the stimulation of collagen types I and II production. With its antioxidative properties, it also helps to protect the skin from environmental damages by reducing the expression of AP-1 and NF-kB factors. Resveratrol hence helps, to maintain skin youth and prevents photoaging.

Efficacy

- acts as an antioxidant
- helps to maintain skin youth
- prevents photoaging
- protects the skin from environmental damages
- increases cell proliferation
- stimulates collagen synthesis
- reduces inflammations
- acts antimicrobial
- penetrates the skin barrier

Appearance

white fine powder

INCI

Resveratrol

Registration

CAS-No.....501-36-0
EC-No.....610-504-8

Nature needs no cosmetics,
but cosmetics need nature

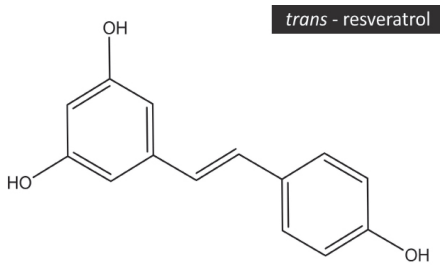
Resveratrol natural

Preservatives / Stabilizers

none

Characteristics

assay (HPLC).....>= 98.0 %
loss on drying.....<= 1.0 %
sulphated ash.....<= 0.5 %
particle size.....100 % pass 80 mesh
melting point point.....254 – 257°C



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molecular weight.....>= 228.2 g/mol
molecular formula.....$C_{14}H_{12}O_3$
synonyms .....(E)-5-(2-(4-Hydroxyphenyl) ethenyl)-1,3-benzenediol

Application

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

Application concentration

skin care formulations.....0.5 - 1 %

Incorporation

Resveratrol natural is soluble in ethanol abs. (MEK) and ethanol abs.: water (1:1) at RT. At 50 - 60°C a clear solution in pentylen glycol and Sensiva SC 10 is possible, that stays clear even after cooling down of the solution.

Toxicology

non hazardous in normal use concentration
pure raw material can cause skin irritation and / or serious eye irritation

Storage & Shelf life

Resveratrol natural should be stored in original sealed containers in a dry, well-ventilated and light protected place at temperatures between 10 – 25°C. Avoid oxidizing agents.

In closed original containers the shelf life is 24 months.

Selco Wirkstoffe Vertriebs GmbH
Straßburg 16
69483 Wald-Michelbach / Germany
Phone +49 6207 939 94 0
Fax +49 6207 939 94 10
www.gfn-selco.de / info@gfn-selco.de

Leaflet_7369_e 30.01.2024

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