Selco

Glutathione

Description

As early as 1888, the French scientist de Rey-Pahlade first discovered Glutathione in the ethanol extract of baker's yeast. The chemical molecular structure of Glutathione was finally determined through chemical analysis, acid-base titration, degradation, and synthesis. Glutathione is the most abundant thiol in animal cells. It is present both in the cytosol and the organelles. The human body synthesizes Glutathione, as do some archaea (halobacteria) and other bacteria, such as cyanobacteria and proteobacteria.

Glutathione exists in reduced (GSH) and oxidized (GSSG) states. The ratio of reduced Glutathione to oxidized Glutathione within cells is a measure of cellular oxidative stress. In healthy cells and tissue, more than 90 % of the total Glutathione pool is in the reduced form (GSH), with the remainder in the disulfide form (GSSG). Glutathione protects mitochondria from oxidative damage and hence, represents a powerful antioxidant agent. The antioxidant function of GSH also contributes to the skin lightening & whitening properties, because the antioxidant agent GSH prevents the production of melanin reducing by ROS. It also boosts the antioxidant effect of Vitamins C & E and helps to reduce inflammations. Glutathione stimulates the natural detoxification system.

Efficacy

- reduces cellular oxidative stress
- helps to maintain an even skin tone
- lightens the skin
- acts as an antioxidant
- fights photo-aging
- helps to protect the skin from environmental damages
- reduces inflammations
- boosts natural detoxification system

Appearance

white crystalline powder

INCI

Glutathione

Registration

CAS-No.....70-18-8
EC-No.....200-725-4

Preservatives / Stabilizers

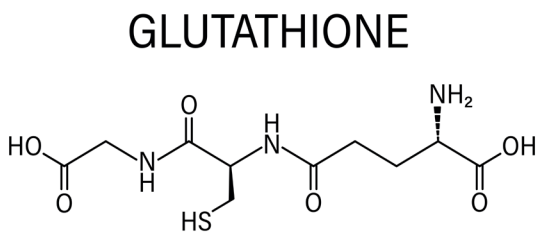
none

Nature needs no cosmetics,
but cosmetics need nature

Glutathione

Characteristics

Glutathione content.....>= 98 %
loss on drying.....<= 0.5 %
specific rotation alpha D 20°C.....-15.5° - -17.5°



molecular weight .....307.33 g/mol
molecular formula.....$C_{10}H_{17}N_3O_6S$

Application

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

Application concentration

skin care formulations.....0.5 – 5 %

Incorporation

Glutathione is soluble in water. It is also soluble in ethanol/water 1:1 at 40°C or glycerin at 70°C. It is unsolvable in pure ethanol or pentylen glycol.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

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

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_7373_e 01.07.2024

Nature needs no cosmetics,
but cosmetics need nature