

Collaplex 1.0 PHE

Description

Collagen is the most abundant form of protein in our body. Different types of collagen are existing and the major collagen type in human bodies is Type I. It serves primarily a structural role, and in humans it is the principal component of skin, cartilage, tendons and ligaments. It is present in virtually any body organ and its importance from a biological perspective is reflected in the fact that collagens are quite similar across species. Bovine and human collagen are considered to be 96 - 97 % homologues, therefore the amino acid composition of both is 96 - 97 % the same. Our collagen can be regarded to be 96 - 97 % identical to collagen of human skin. As a structural protein, collagen is essential to creating the body's physical structure, and as an extracellular matrix it acts as a supporting framework over which our cells are arranged. Collagen formulations have been used for health purposes for at least 800 years. Collaplex 1.0 PHE is a ropelike triple helix native collagen for use in high quality cosmetic products. Collaplex 1.0 PHE belongs to high molecular triple helical (native) collagen of highest value, which is in the range of 250.000 - 300.000 Dalton.

As we mature, the body's production of collagen slows down and this and the gradual crosslinking of collagen contribute to an "older" appearance. Oral and topical collagen formulations are thought to help alleviate these age-related skin changes. Collaplex 1.0 PHE shows an outstanding high water absorption capacity. Over time, the powerful native and natural collagen helps to fill in lines and wrinkles, leaving your skin smooth a plump. In addition, this outer film reduces the irritating and negative influences of environment on the skin. A certain level of stratum corneum hydration is essential for skin smoothness and elasticity.

Efficacy

- reduces wrinkles and fine lines
- improves skin smoothness and skin feel
- acts as a natural moisturization agent
- forms a protective film on the skin
- improves sensorial properties

Appearance

opaque, viscous solution

INCI

Aqua, Soluble Collagen

Registration

CAS No.:

Aqua..... 7732-18-5

Soluble Collagen.....-/-

EC-No.:

Aqua.....231-791-2

Soluble Collagen.....-/-



Nature needs no cosmetics,
but cosmetics need nature

Collaplex 1.0 PHE

Preservatives / Stabilizers

preservative Phenoxyethanol.....	0.95 %
stabilizer Sodium Citrate.....	1.0 %

Characteristics

Soluble Collagen.....	1.00 - 1.30 %
dry residue.....	2.00 - 2.80 %
acid value.....	4.50 - 6.50
pH value.....	3.50 - 4.00
HVT-value.....	35 - 45 °C

Application

daily cosmetic products
creams and lotions
face masks
gels and ampoules
body care
after sun care
after shave
collagen fluids

Application concentration

skin care formulation.....	0.2 - 6 %
----------------------------	-----------

Incorporation

Collaplex 1.0 PHE should be stirred before using and blended into the water phase at max. 30 °C (cold-process capable).

While using Collaplex 1.0 PHE in water based ampoules or fluids you have to add 2 % sodium chloride to slide the isoelectric point to the right direction and to avoid any precipitation after a long term. For using it in after shaves in combination with alcohol and water, pH has to be positioned lower than four, otherwise Collaplex 1.0 PHE will precipitate as fibrils.

Collaplex 1.0 PHE is soluble in water.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Collaplex 1.0 PHE should be stored in a dry and light protected place at 10 - 25 °C.

In closed original containers the shelf life is five years.