# GfN<sup>●</sup>

## Desamidocollagen K 1,5

#### Description

Collagen is the most abundant form of protein in our body. It serves primarily a structural role, and in humans it is the principal component of skin, nails, 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. 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. Desamidocollagen K 1,5 is a polypeptide containing three peptide chains that are rich in typical amino acids like proline and hydroxyproline. It is produced by an alkaline process on calves skins. During this process special amino groups are changed to carboxyl groups. Our Desamidocollagen K 1,5 is classified as native collagen and has an intact triple helical structure. Desamidocollagen K 1,5 is known to be one of the best moisturizers.

As we mature, the body's production of collagen slows down and this is believed to contribute to an "older" appearance. Oral and topical collagen formulations are thought to help alleviate these agerelated skin changes. Desamidocollagen K 1,5 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

milky, viscous solution

#### INCI

Aqua, Desamido Collagen

#### Registration

CAS-No.:	
Aqua	7732-18-5
Desamido Collagen (Collagen)	.9007-34-5

EC-No.: Aqua.....231-791-2 Desamido Collagen (Collagen)......232-697-4

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### Desamidocollagen K 1,5

### Preservatives / Stabilizers

#### preservatives:

Phenoxyethanol	0.288 %
Methylparaben	0.064 %
Ethylparaben	0.032 %
Propylparaben	0.016 %

#### Characteristics

Soluble Collagen	1.50 - 1.70 %
acid value	0.80 - 1.30
pH value	3.50 - 4.00
HVT-value	34 - 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.....0.5 - 4 %

#### Incorporation

Desamidocollagen K 1,5 should be blended into the water phase at max. 30°C (cold-process capable).

While using Desamidocollagen K 1,5 in water based ampoules or fluids you have to add 0.75 % 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 Desamidocollagen K 1,5 will precipitate as fibrils. Desamidocollagen K 1,5 is soluble in water.

#### Toxicology

non hazardous in normal use concentration

#### Storage & Shelf life

Desamidocollagen K 1,5 should be stored in a dry and light protected place at  $10 - 25^{\circ}$ C.

In closed original containers the shelf life is five years.

GfN Herstellung von Naturextrakten 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

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