**Tripeptide-1**

**INCI name:** Tripeptide-1

**Peptide Sequence:** Gly-His-Lys

**Molecular Formula:** C_{14}H_{24}N_{6}O_{4}

**Molecular weight:** 340.5

**Cas No.:** 72957-37-0

**Synonym:** Kollaren

**Application:** Cosmetics – anti-aging, firming care, remodeling skin care, anti-photoaging

**Packaging:** bottle

**Filling quantity:**
- 1 g / bottle
- 5 g / bottle
- 10 g / bottle
- special packaging upon request

**Storage and Shelf life:**
- -20 °C, dark and clean shelf life 24 months
- + 6 to +8° C dark and clean shelf life 6 months
Product Specification

Tripeptide-1

Manufacturing date: 05.03.2018
Expiry date: 05.02.2020

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
<th>Batch No. 20180503</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>white powder</td>
<td>conforms</td>
</tr>
<tr>
<td>Identity by HPLC</td>
<td>the retention is same with the reference substance</td>
<td>conforms</td>
</tr>
<tr>
<td>Identity by MS</td>
<td>340.50 ± 1</td>
<td>conforms</td>
</tr>
<tr>
<td>Solubility</td>
<td>soluble in water</td>
<td>conforms</td>
</tr>
<tr>
<td>Amino acid composition</td>
<td>± 10 % of theoretical</td>
<td>conforms</td>
</tr>
<tr>
<td>Peptide purity (by HPLC)</td>
<td>≥ 95.0 % by area integration</td>
<td>98.56 %</td>
</tr>
<tr>
<td>Water content (Karl Fischer)</td>
<td>≤ 8.0 %</td>
<td>3.55 %</td>
</tr>
</tbody>
</table>

**Characteristics**

Tripeptide-1 is a synthetic peptide comprised of three amino acids: Gly-His-Lys. GHK is a matrikine peptide messenger notably involved in the process of cutaneous repair. GHK is a tripeptide fragment of the collagen chain. Tripeptide-1 stimulates collagen and glycosaminoglycan synthesis; its activity stands comparison with retinoic acid and is thus recommended for the restructuring of dermal matrix (firming and anti-wrinkle action). Thanks to protein and glycan neosynthesis, skin grows thicker, firmer and wrinkles become smoother. The production of extracellular matrix also protects skin against UV rays.

Use level: 0.001 – 0.05 %

**Cosmetic benefits**

Tripeptide-1 stimulates collagen and glycosaminoglycan synthesis, reinforces the epidermis, diminished wrinkles.