



## Oligopeptide-10

<b>INCI name:</b>	<b>Oligopeptide-10</b>
Peptide Sequence:	FAKALKALLKALKAL-NH <sub>2</sub>
Molecular Formula:	C <sub>78</sub> H <sub>140</sub> N <sub>20</sub> O <sub>15</sub>
Molecular weight:	1598.07
Cas No.	466691-40-7
Application:	Cosmetics – anti acne
Packaging:	bottle
Filling quantity:	1 g / bottle 5 g / bottle 10 g / bottle 100 g / bottle special packaging upon request
Storage and Shelf life:	-20 °C cool, dark and clean shelf life 24 months and + 2 to +6° C cool, dark and clean shelf life 12 months



Product Spezifikation

**Oligopeptide-10**

Manufacturing date: 24.08.2018

Expiry date: 23.08.2020

Test	Specification	Batch No. 20180824
Appearance	white or off-white powder	conforms
Identity by HPLC	the retention is same with the reference substance	conforms
Identity by MS	1598.07 ± 1	conforms
Solubility	soluble in water	conforms
Amino acid composition	± 10 % of theoretical	conforms
Peptide purity (by HPLC)	≥ 95.0 % by area integration	98.8 %
Water content (Karl Fischer)	≤ 8.0 %	2.66 %

**Characteristics**

Oligopeptide-10 broad-spectrum activity against many types of organisms, including p. acne bacteria. Oligopeptide-10 is a short bioactive peptide consisting of fifteen naturally occurring amino acids that provides anti-microbial activity p-acne-bacterium.

Oligopeptide-10 has potent activity against Propionibacterium acnes causing rapid cell death. It binds to negatively charged surface elements (lipoteichoic acids) of bacteria enabling access to its primary target, the cytoplasmic membrane which causes a lethal osmotic imbalance within the bacteria. Due to this unique mechanical mechanism of action bacteria have a very low probability of becoming resistant and bacteria resistant to other antibiotics remain susceptible to Oligopeptide-10. In addition, it neutralizes pro-inflammatory bacterial components, reducing redness. In independent studies Oligopeptide-10 has been shown to be non-cytotoxic, non-mutagenic, non-irritating and non-sensitizing. Solubility – water soluble; Optimum pH: 5-7. Add to the water phase of all emulsion types.

Use level: 0.001 – 0.01 % (Oligopeptide-10 should be incorporated at the final stage of the manufacturing, provided the temperature is below 45 °C).

**Cosmetic benefits**

Used in many acne products to enhance natural defense systems, Oligopeptide-10 is an anti-microbial peptide derived from plant amino acids that is highly synergistic with salicylic acid. Studies have demonstrated that Oligopeptide-10 has broad-spectrum activity against many types of organisms, including p. acnes bacteria. Clinical studies have shown a significant reduction in the appearance of blemishes and red, blotchy spots after using products with Oligopeptide-10.