

## Peptidox<sup>®</sup> Plus P

### Description

Peptidox<sup>®</sup> Plus P, or acetyl octapeptide-3, is a high-quality water-soluble oligopeptide for cosmetic use, especially in anti-aging applications. The use of Peptidox<sup>®</sup> Plus P helps to diminish lines and visible signs of aging. Peptidox<sup>®</sup> Plus P is an octapeptide-3, synthesized from octapeptide-3 and acetic acid.

Peptidox<sup>®</sup> Plus P supports anti-wrinkle effects caused by contraction of muscles of facial expressions, decreasing neuronal excitability by SNARE complex destabilization. The primary role of SNARE proteins is to mediate vesicle fusion with the target membrane. The best studied SNAREs are those that mediate the neurotransmitter release of synaptic vesicles in neurons. These neuronal SNAREs are the targets of the neurotoxins responsible for botulism and tetanus. Botulinum neurotoxin (BoNT) is a proteolytic enzyme that cleaves SNARE proteins in neurons. It causes disfunction of SNARE proteins, by damaging them and therefore preventing synaptic vesicles from fusing to the synaptic membrane, preventing the releasing of their neurotransmitters. With the inhibition of neurotransmitter release into the synaptic cleft, action potentials cannot be propagated to stimulate muscle cells, resulting in paralysis. Although the effects of botulinum neurotoxin can be fatal, it has also been used as a therapeutic agent in medical and cosmetic treatments. Peptidox<sup>®</sup> Plus P is a non-toxic molecule that mimics the action of BoNTs (Botulinum neurotoxins) and therefore their remarkable anti-wrinkle activity. The use of Peptidox<sup>®</sup> Plus P softens fine lines and helps to prevent further wrinkle development. Peptidox<sup>®</sup> Plus P is a medically safe, topical and painless alternative to BoNTs without rigid mask effect of the mimics.

### Efficacy

- reduces wrinkles
- improves skin elasticity
- decreases wrinkle progression

### Appearance

white powder

### INCI

Acetyl Octapeptide-3

### Registration

CAS-No.....-/-

EC-No.....-/-

Nature needs no cosmetics,  
but cosmetics need nature

## Peptidox<sup>®</sup> Plus P

### Preservatives / Stabilizers

none

### Characteristics

purity (HPLC).....>= 98.0 %  
molecular weight (ESI-MASS)..1075.2 +- 1 g/mol  
water content (K.Fischer).....<= 8.0 %  
acetic acid (HPLC).....< 15.0 %

molecular formula.....C<sub>42</sub>H<sub>72</sub>N<sub>16</sub>O<sub>15</sub>S  
molecular weight.....1073.0 g/mol  
synonym.....acetyl octapeptide-8

### Application

in high quality cosmetic products  
creams and lotions  
face masks  
gels and ampoules

### Application concentration

skin care formulations.....0.001 - 0.05 %

### Incorporation

Peptidox<sup>®</sup> Plus P should be blended into the water phase below 40°C.

### Toxicology

non hazardous in normal use concentration

### Storage & Shelf life

Peptidox<sup>®</sup> Plus P should be stored in sealed containers at a dry, cool and light protected place at 2 - 8°C. For long time storage -20°C is recommended.

In closed original containers the shelf life is 24 months.