

TECHNICAL DATA SHEET

Product Name: Argireline

INCI Name: Water, Acetyl Hexapeptide-8, Phenoxyethanol, Potassium Sorbate

CAS: 7732-18-5, 616204-22-9, 122-99-6, 24634-61-5

Sequence: Ac-Glu-Glu-Met-Gln-Arg-Arg-NH₂

Synonyms: Acetyl hexapeptide-8 (or also acetyl hexapeptide-3); Ac-Hexapeptide-8; Ac-Glu-Glu-Met-Gln-Arg-Arg-NH₂

Chemical Classification: Peptides

Functional Category: Skin and hair conditioning agent.

Description: Argireline is a hexapeptide composed of short chains of amino acids. It functions similarly to botulinum toxin, achieving its paralytic effect through rapid and irreversible blockage of neuromuscular transmission. After topical application, it actively engages in complex physiological processes related to facial muscle tightening. It inhibits mechanisms responsible for the formation of wrinkles. It is water-soluble and preserved with phenoxyethanol and potassium sorbate. It is a clear, odorless liquid with a peptide content of 500 ppm. Action on the skin: Its effect occurs after passing through the cutaneous barrier, penetrating the viable epidermis (keratinocytes), basal layer (melanocytes, nerve endings), dermis (fibroblasts), and hypodermis (adipocytes). It binds to cellular receptors. The super lipid (called a vesicle) releases neurotransmitters at synapses, sending signals to the muscles. Three proteins forming the so-called SNARE complex are crucial for the final phase of exocytosis and muscle contraction. Acetyl hexapeptide (Argireline) mimics one of the proteins in the SNARE complex, causing its destabilization. Even a slight destabilization of the SNARE complex leads to the blocking of the physiological process of facial muscle tightening. Without the ability to frown, unwanted facial wrinkles are prevented. Eye wrinkles are reduced by up to 17% after 15 days of Argireline application and 27% after 30 days. A study published in the International Journal of Cosmetic Science showed that a 10% concentration of Argireline reduces facial wrinkles by 30% over a 30-day period. It is chemically pure, biodegradable, and non-toxic.

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Benefits:

- **Reduces wrinkles:** Argireline inhibits the release of neurotransmitters controlling facial muscle contractions, reducing the appearance of wrinkles and fine lines caused by facial expressions
- **Non-invasive alternative to Botox:** Marketed as a topical alternative to Botox (botulinum toxin injections), providing a non-invasive option for those avoiding injections.
- **Supports collagen production:** Argireline may stimulate collagen production, contributing to skin elasticity and firmness.
- **Safe and well-tolerated:** Generally considered safe for topical use, it doesn't cause muscle paralysis like Botox, offering a subtle option for a natural look.
- **Hydration and moisture retention:** Products containing Argireline may include hydrating ingredients, contributing to overall skin texture improvement and moisture retention.

Usage: Add to the water phase of formulations, preferably at <40°C/100°F (creams, lotions, gels, etc.). Use at concentrations of 0.5 - 5%.
Can be combined with Tripeptide-5, collagen-boosting peptides, and teprenone.
For external use only.

Storage: Store in the refrigerator.

Applications: Anti-aging creams, wrinkle creams, lotions, and gels. Protective creams, sunscreens, and after-sun products.

Original raw materials: Amino acids

Method of obtaining: Acetyl hexapeptide-3 is obtained synthetically from amino acids. It is a fragment of SNAP-25, a substrate for botulinum toxin (Botox).

Animal testing: The substance has not been tested on animals.

GMO: Not GMO

Vegan: Does not contain components of animal origin.

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