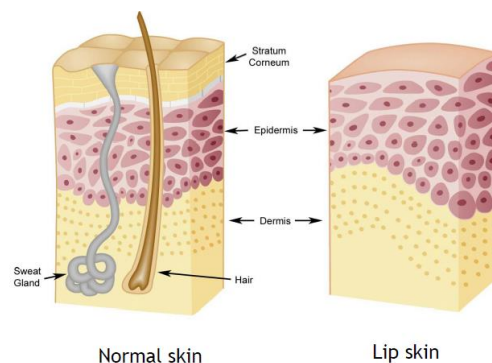


CLINICAL DATA – LIP TREATMENT COMPLEX (TRYPEPTIDE-1, SODIUM HYALURONATE)

Lip Skin

Lip skin vs. normal skin:

- The stratum corneum is extremely thin or completely absent in most people.
- It does not have sweat or sebaceous glands.
- The lip's only source of moisture is the saliva inside the mouth.



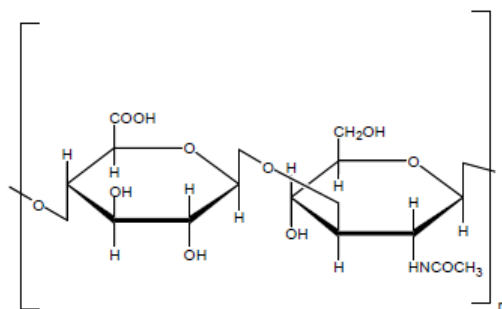
Lip skin related problems

- Lips are unprotected due to the absence of keratinized stratum corneum.
- Moisture rapidly evaporates from the lips.
- Lips also dehydrate very easily because of the sun.
- They are continually exposed to environmental aggressions (e.g. Pollution, cigarette smoke etc.)

Lips require more moisturisation, protection and care than the rest of the skin.

Hyaluronic Acid

Hyaluronic acid (HA) is a naturally-occurring polysaccharide that consists of repeating units of glucuronic acid and N-acetyl glucosamine.



HA is the most abundant glycosaminoglycan (GAG) found in the human dermis.

HA is unique among the GAGs in that it does not contain any sulphate and is not found covalently attached to proteins as a proteoglycan.

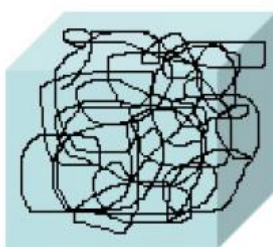
Hyaluronic acid in skin

- HA is particularly abundant in skin where it constitutes a high fraction of the extracellular matrix of the dermis.
- Its rheological properties make it an important component of joint fluids.

- HA acts as a physical background material: it has functions in space filling and lubrication. It fills the space between collagen fibres, forming a polymeric network, supporting and influencing tissue functions.
- HA provides hydration and structural integrity to the dermis.

Hyaluronic Acid properties

- The most important function of HA in the extracellular matrix is to preserve tissue hydration, thanks to its high water retaining capacity.
- The molecule of HA is stabilised by hydrogen bonds parallel with the chain axis. The polymer consequently takes up a stiffened helical configuration, which gives the molecule an overall expanded coil structure in solution.



The polymeric network holds water and acts like a “sponge”.

- HA forms a very hygroscopic gel-like system in solution and it swells by absorbing water from the surrounding atmosphere.
- HA has the ability to bind with water up to 1000 times its volume.

HA expands within the tissue – i.e providing greater volume

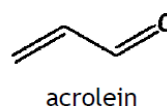
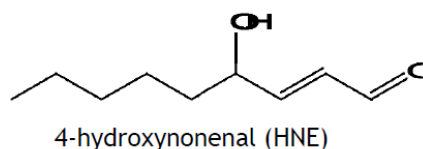


Skin protection

- Our skin is exposed to air pollutants, environmental chemicals and UV radiation
- These factors generate reactive species which are involved in skin deterioration and ageing.

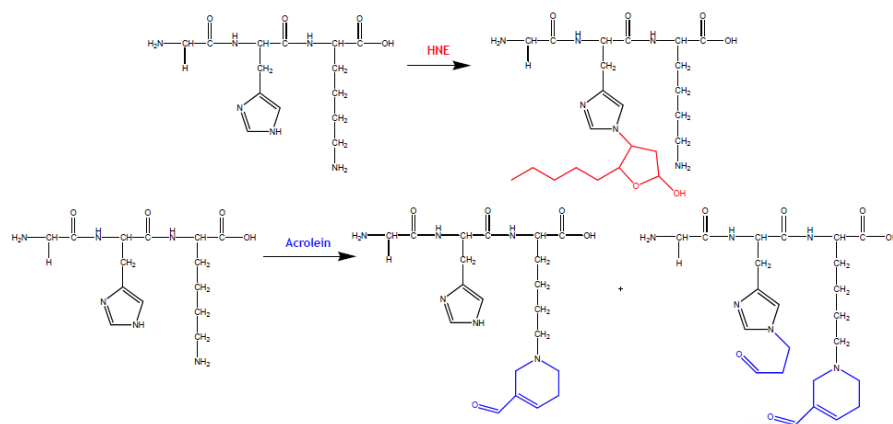
A recently described family of noxious reactive species are Reactive Carbonyl Species, known as RCS.

RCS are small carbonyls which contain activated positions and therefore are highly reactive. They are generated endogenally or acquired from pollution.



Skin Protection – Tripeptide-1

Tripeptide-1 is able to capture noxious RCS and protect skin.



Tripeptide-1, Sodium Hyaluronate

Tripeptide-1, Sodium Hyaluronate is a new vehiculisation of HA specifically designed for lip boosting products.

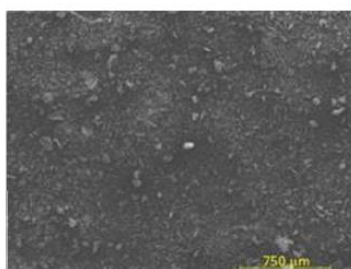
Key ingredients to improve lips' appearance:

- Sodium Hyaluronate: Swells when in contact with skin water, producing a long-term plumping effect on the lips.
- Tripeptide-1: Protects lips from environmental aggressions, sun exposure and smoke due to its free radical scavenging properties.

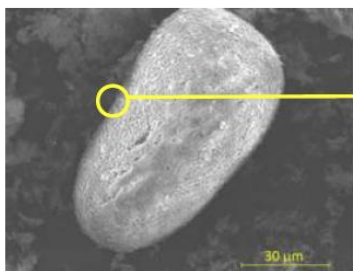
Technology:

The particle size of Sodium Hyaluronate is reduced and the small particles are suspended in an oily basis, to enhance penetration and efficacy.

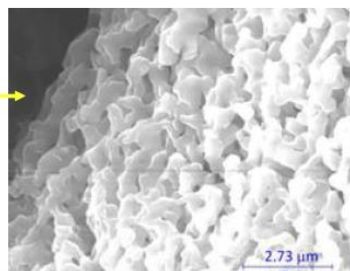
Tripeptide-1, Sodium Hyaluronate solid particles were observed by Scanning Electron Microscopy (SEM).



Tripeptide-1, Sodium Hyaluronate particles at 40x



Tripeptide-1, Sodium Hyaluronate particles at 1000x

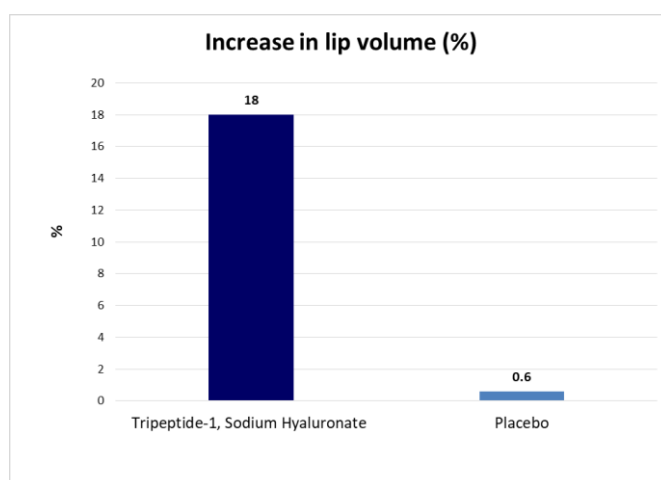


Tripeptide-1, Sodium Hyaluronate particles at 11000x

***In Vivo* test – Lip Plumpness**

- A panel of 10 female volunteers, aged 18 to 70, applied a gel containing 2% Tripeptide-1, Sodium Hyaluronate on their lips twice daily, for 30 days.
- Another panel of 10 volunteers used a placebo gel.
- The volumising power of the formulation containing Tripeptide-1, Sodium Hyaluronate was measured with the Visioscan program. Visioscan is a UV-A light video camera with high resolution. The program calculates the quantity of liquid necessary to fill the lip area by means of a special software.

After 30 days of treatment, Tripeptide-1, Sodium Hyaluronate proved to increase the lip volume by 18%.



The placebo gel product no effect on lips.



Day 0



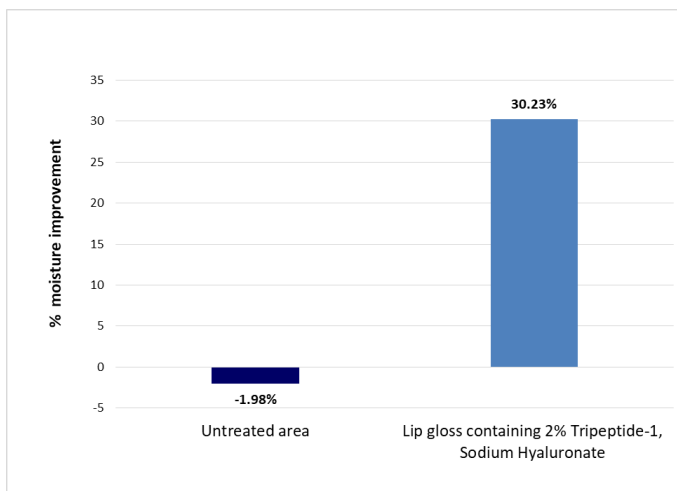
Day 30

The volunteers evaluated qualitatively by a 90% improvement, the moisturising and soothing effect of the product containing Tripeptide-1, Sodium Hyaluronate.

***In-vivo* test - Moisturisation**

- 20 female volunteers aged 18-69 were acclimatised for 45 minutes at a temperature of 22°C and 60% relative humidity.
- The right side of the lips of the volunteers was treated with a Lip gloss containing 2% Tripeptide-1, Sodium Hyaluronate and the left area was not treated (control measurement area).
- Measurements were taken using a corneometer before the application and 1 hour after the treatment.

The percentage of moisture variations of the untreated area was deducted from the treated area. Results showed a moisture increase of 32.21% only 1 hour after application of the formulation containing Tripeptide-1, Sodium Hyaluronate.



The skin moisture measurements showed an immediate improvement in skin hydration.

Cosmetic Benefits

Tripeptide-1, Sodium Hyaluronate:

- Is especially formulated for lip care applications
- Increases lip volume, producing a long-term plumping effect
- Enhance moisturisation of lip skin
- Protects lips' skin from sun exposure effects, preventing premature ageing of the lips
- Helps to lubricate the lips
- Provides immediate moisturisation