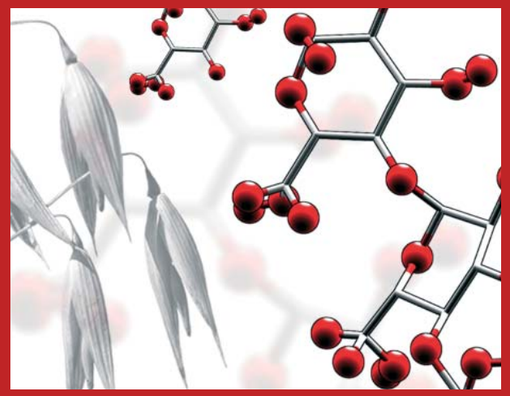

OSILIFT®

SUGARS FOR THE SKIN: OPTIMAL AND IMMEDIATE LIFTING EFFECT

A firmer, more toned, smoother skin: that is what women want as the years pass. Attentive to the needs of their skin, they demand that their daily care products also be immediately and visibly effective. OSILIFT®, a sugar-based tensor ingredient, is SILAB's new spearhead.

An elastic, flexible molecule, OSILIFT® is a purified fraction of branched natural polyoses obtained from oats. This very-high-molecular-weight network of complex sugars linked by intra- and inter-chains hydrogen bonds adheres to the surface of the skin in a continuous, cohesive 'lifting' film.

Its cosmetic performance has been characterized by:

➢ a sensorial approach: 86% of the volunteers on a trained panel felt an immediate tensor effect;

➢ an instrumental approach: short-term efficiency (tensor, smoothing and anti-wrinkle effect 30 minutes after a single application) and long-term efficiency (anti-wrinkle action after 1 month of twice-daily treatment);

➢ an esthetic approach: longer-lasting make-up in 72% of the volunteers in a foundation formulation.

Easy formulability, strong lifting power and exceptionally long-lasting: OSILIFT® can be incorporated into all tensor and remodelling face and body care products.

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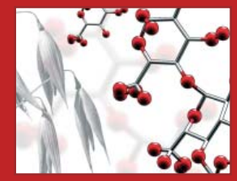
SILAB® : Registered Trademark

Engineering natural active ingredients



OSILIFT®

Purified fraction of natural oats polyoses

Sensory properties	Immediate efficiency	Long-term efficiency	Esthetic properties
Tensor effect felt by trained and untrained panels	Tensor effect Smoothing effect Anti-wrinkle properties	Anti-wrinkle properties after 28 days of treatment	Improves the hold of make-up

TENSOR EFFECT

04/2007 edition - All the scientific and technical data in this document are the SILAB's exclusive property

B.P. 213 - 19108 Brive Cedex - France
Plant : Z.I. de la Nau - 19240 Saint Viance
Phone : (33) 555 84 58 40 - Fax : (33) 555 84 95 64
www.silab.fr - e-mail : silab@silab.fr

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OSILIFT®

GENERAL PRINCIPLES

OSILIFT® is a 100% natural sugar tensor purified fraction of oat polysaccharides. A very high molecular weight network, OSILIFT® has an elevated lifting power and high solubility in aqueous media, an advantage that facilitates its formulation.

➤ Mechanism of action of OSILIFT®:

Composed of linear chains of polyose molecules and stabilized by inter- and intra-chains hydrogen bonds, OSILIFT® is organized in a three-dimensional configuration. OSILIFT® favors a large number of interactions between its sugar chains and the intercellular lipids of the *Stratum corneum*; it adsorbs to the surface of the skin and forms a viscoelastic, cohesive and continuous biological film.

➤ Efficacy and formulability capacity of OSILIFT® :

Immediate sensorial efficiency, a short- and long-term instrumental approach, and scientifically proven cosmetic benefits provide OSILIFT® with an overall action. It significantly increases skin tension parameters in a dose-dependent manner.
It is very soluble and relatively insensitive to changes in pH, temperature and salinity. OSILIFT® is not sticky and has no shiny effect on the skin. Finally, it is practically colorless and so can be incorporated in the whitest emulsions and the clearest serums.

OSILIFT® procures a tensor effect that is visibly and immediately perceptible by the consumer. In addition, it provides a short- and long-term anti-wrinkle effect and improves the hold of makeup. OSILIFT® can be incorporated in all anti-age cosmetic formulas that tone and smooth the skin and attenuate lines and wrinkles.

TECHNICAL SHEET

- **Latin name:** *Avena sativa*
- **I.N.C.I. name:** *Avena sativa* (Oat) Kernel Extract
- **Cas N° :** 84012-26-0

Form
- Aqueous solution
- Aspect: limpid liquid
- Odor: characteristic
- Color: light yellow

Analytical features
- Dry matter: 90 - 120 g/l
- Total sugar (Dubois method): 80 - 120 g/l
- pH: 3.5 - 4.5
- Preservative: 0.50% Phenoxyethanol
  0.20% Ethylhexylglycerin

Bacteriology
- Sterile product
- No yeast and mould present
- No pathogenic germs present

Packaging
Sterile 1L and/or 5 L plastic container

Storage
Store preferably at +20°C

Use
- Fully soluble in aqueous medium
- Solubility in ethanol: soluble up to 30/70 ethanol/water (v/v)
- Can withstand temperatures up to 80°C for at least two hours
- Stable at pH between 2 and 10
- Recommended amount: 1 to 4%

Innocuousness

✓ Determination of irritant potential on caucasian skin: Non irritant
✓ No mutagenecity according to Ames' test
✓ Non phototoxic
✓ Non cytotoxic
✓ Evaluation of sensitizing capacity on human volunteers with normal skin: Non sensitizing
(Marzulli-Maibach method)

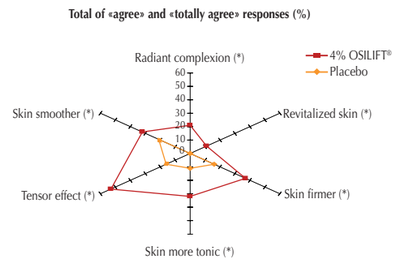
COSMETIC EFFICACY

IN VIVO STUDIES

➤ Sensorial evaluation

These studies were performed after a single application of OSILIFT® at 4% formulated in a gel

A sensorial test on a panel of 19 untrained volunteers (mean age 31 ± 6 years) was used to evaluate the tensor effect of OSILIFT®. The sensations felt were determined using self-evaluation questionnaires containing closed questions. The results showed that OSILIFT® provided a significant tensor effect and the sensation of a firmer and smoother skin.
Another study conducted on a panel of 17 trained volunteers (mean age 31 ± 6 years) confirmed these results. 86% of the volunteers reported a tensor effect at the crow's feet greater than that obtained with the placebo and comparable to that felt after applying a formula containing 10% BSA (bovine serum albumin).



* : Significant results according to Student's test (P<0.05)

Sensorial evaluation of the tensor effect of OSILIFT® formulated at 4% in a gel, 30 minutes after a single application. Comparison with the placebo.

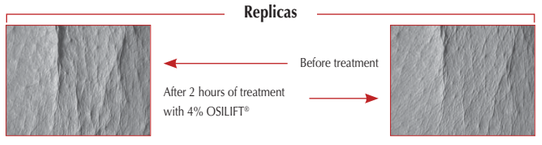
➤ Instrumental evaluation

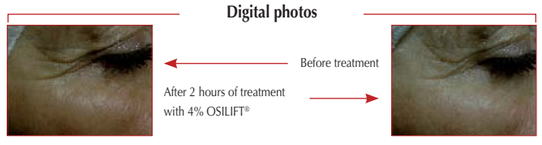
These studies vs. placebo were conducted 2 hours after a single application of OSILIFT® at 4% formulated in an emulsified gel

	Immediate tensor effect	Immediate smoothing effect
Panel:	33 healthy female volunteers, mean age 31 ± 8 years	19 healthy female volunteers, mean age 50 ± 10 years
Zone treated:	Forearms	Forearms
Method used:	Cutometry	Profilometry
Results:	Improved parameters characteristic of skin tension in 64% of the volunteers: -Uf = + 6.3% (P = 0.0003) ; -Ue = +9.3% (P = 0.00005)	Improved parameters characteristic of skin microrelief in 68% of the volunteers: Ra = - 5.7% (P = 0.0099) ; Rz = - 3.5% (P = 0.0056)

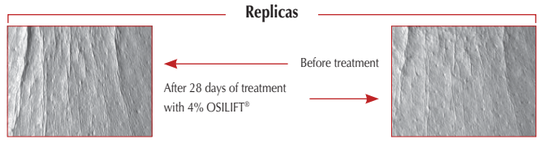
Anti-wrinkle properties: immediate and long-term effect

Immediate effect: a profilometry study of 19 volunteers, mean age 55 ± 9 years, showed the immediate anti-wrinkle action of OSILIFT® formulated at 4% in an emulsion, 2 hours after a single application on the crow's feet. OSILIFT® significantly reduced the number of wrinkles (-11.5%; P = 0.0446), the total wrinkled surface (-17.4%; P = 0.0337) and the total length of wrinkles (-13.9%; P = 0.0346). A reduction in the total wrinkled surface was observed in 63% of the volunteers.





Long-term effect: a profilometry study vs. placebo on a panel of 15 volunteers, mean age 39 ± 5 years, showed the long-term anti-wrinkle action of OSILIFT® formulated at 4% in an emulsion. After 28 days of twice-daily applications on the crow's feet, OSILIFT® reduced the number of wrinkles (-8.1%; P = 0.0668), the total wrinkled surface (-16.4%; P = 0.0426), and the total length of wrinkles (-15,3%; P = 0.0312). A reduction in the total wrinkled surface was observed in 67% of the volunteers.



Influence of different parameters on the efficiency of OSILIFT®

In vivo tests performed in standard conditions (OSILIFT® at 4% vs. placebo) showed that OSILIFT® has a significant tensor effect regardless of the formula (gel, emulsified gel, emulsion) and regardless of the zone of application of the product (face and body). The tensor effect measured at the crow's feet was maximal 2 hours after application of the product and was still significant after 4 hours.

➤ Esthetic evaluation: long-lasting make-up

Formulated at 4% in a make-up foundation and compared to a placebo make-up foundation, OSILIFT® significantly improved the hold of make-up up to 6 hours after application of the product. This effect was observed in 72% of the volunteers.

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