

# ALGISIUM<sup>®</sup>



SKIN RESTRUCTURATION  
ANTI-WRINKLE  
MOISTURIZER  
BODY FIRING

**EXSYMOL**  
MONACO

# ALGISIUM

## The original silanol

# ALGISIUM

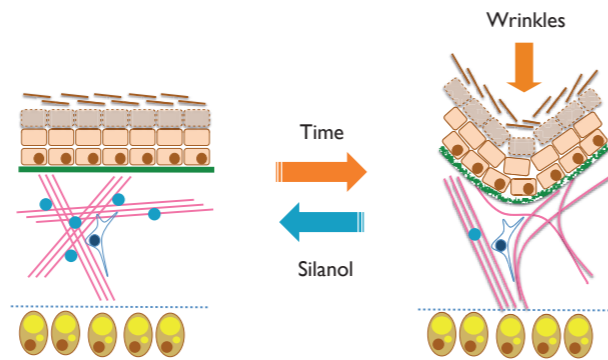
## Applications

### SILICIUM FOR SKIN RESTRUCTURATION

Silicium is an essential component of the skin. Indeed, by interacting with structure and elastic proteins within the dermis such as collagen fibers, elastin and proteoglycans, the silicium insures optimal skin organization and architecture. Furthermore, many studies show that silicium is capable of stimulating skin cell metabolism for enhanced cell proliferation and activity (e.g. collagen production, contraction ability...).

However, with age the amount of silicium naturally present in the skin tends to decrease. As a result, an overall collapse of the skin architecture will happen, which will in turn induce skin metabolism slow down, inevitably leading to wrinkles.

With the silanol technology, we replenish the natural pool of silicium hence allowing a complete skin restructuration for global benefits at all levels.

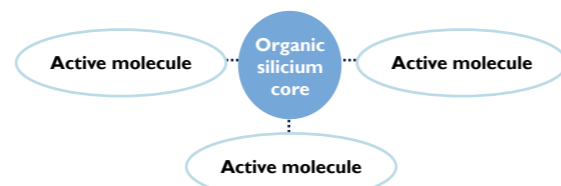


### THE SILANOL TECHNOLOGY

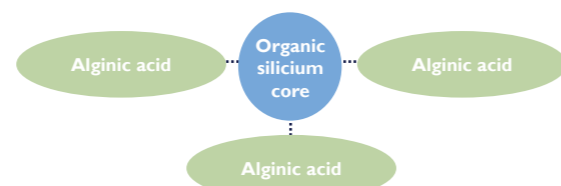
#### Organic Silicium

Silanols is a family of compounds where all members share the same core of organic silicium. However, this silicium is prone to polymerization that will lead to a loss of activity. It is therefore mandatory to stabilize this organic silicium core in order to ensure an optimal activity.

The silanol technology relies on exchangeable molecules to stabilize the organic silicium core and, with each different molecule chosen to stabilize this core, we have a different, more specialized silanol.



STABILIZATION



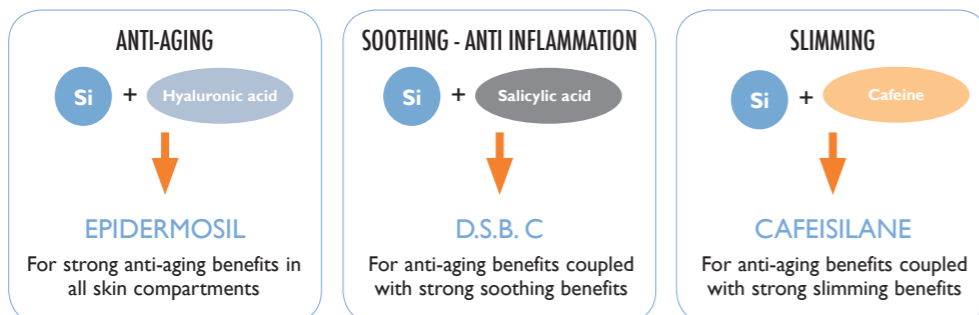
SPECIALIZATION

#### Algisium, the original silanol

ALGISIUM is the father of the silanol family. Its organic silicium core is stabilized with alginic acid that has virtually no cosmetic benefits. All of ALGISIUM's benefits therefore come from the organic silicium core only.

#### A few specialized silanols

Because all silanols have the same core of organic silicium, they also have all the benefits it provides. However, depending on which molecule the silicium core is stabilized with, we can have additional and specific benefits.



INCI name: METHYLSILANOL MANNURONATE

#### Skin benefits

- Increases skin cell proliferation
- Stimulates collagen production
- Improves cell communication
- Preserves skin hydration
- Stimulates lipolysis
- Prevents inflammation
- Prevents glycation
- Protects skin cells from free radicals

Detailed scientific files are available on demand for each of these benefits.



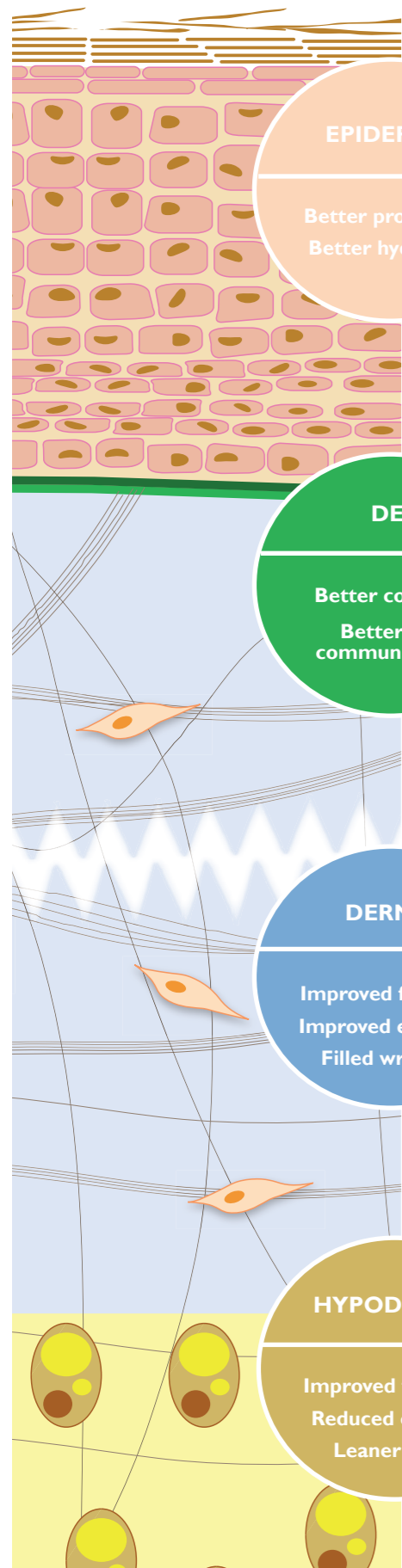
#### Cosmetic applications

##### FACE CARE

- Anti-aging
- Anti-wrinkle
- Eye contour
- Hydration

##### BODY CARE

- Anti-cellulite
- Slimming
- Firming
- Hydration



**EPIDERMIS**

Better protection  
Better hydration

**DEJ**

Better cohesion  
Better cell communication

**DERMIS**

Improved firmness  
Improved elasticity  
Filled wrinkles

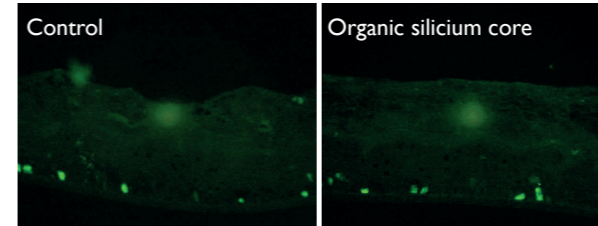
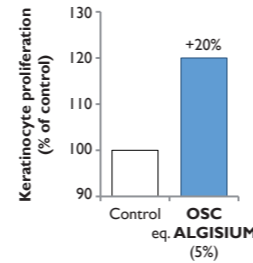
**HYPODERMIS**

Improved firmness  
Reduced cellulite  
Leaner body

### Within the epidermis, ALGISIUM improves keratinocyte proliferation

Because of aging, keratinocytes have a lower proliferation rate that slowly leads to an epidermis thinning and eventually weakens skin protection and reduce skin hydration because of an increased transepidermis water loss.

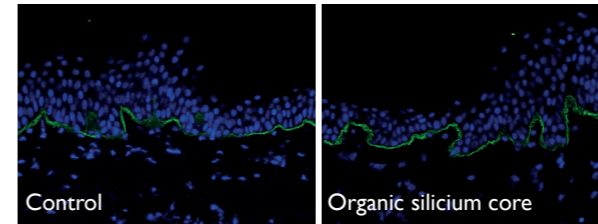
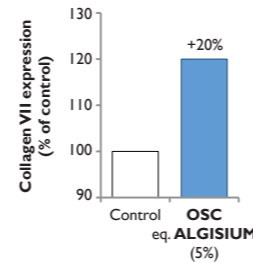
ALGISIUM improves the number of proliferative keratinocytes (in bright green) in human reconstructed epidermis. That leads to a thickening of the epidermis for a skin that will be better protected and better hydrated.



### Within the DEJ, ALGISIUM improves skin cohesion

The dermal epidermal junction (DEJ) is the interface between both skin compartments. It is responsible for skin cohesion. With age, the DEJ becomes thinner and can be duplicated, hence leading to a loss of cohesion and a decreased cell communication.

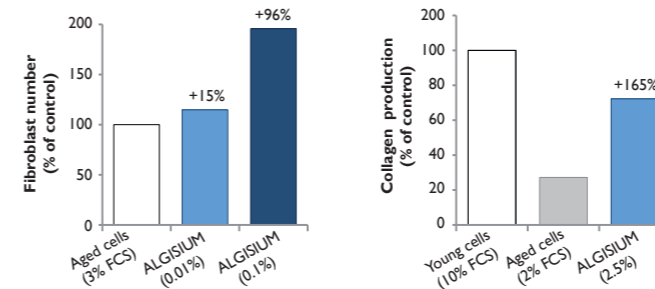
ALGISIUM is capable of improving collagen VII (in green) expression, one of the key constituent of the DEJ in human skin explants. This leads to an improved skin cohesion and skin cell communication.



### Within the dermis, ALGISIUM improves collagen production

With age, all metabolisms tend to slow down. In the dermis this results in a lower proliferation rate and a lower activity of fibroblasts. There are too few collagen fibers and the skin is flaccid and wrinkled.

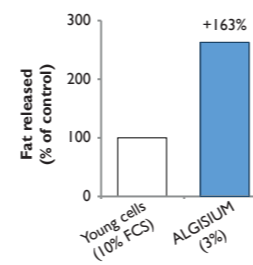
ALGISIUM stimulates fibroblast number and activity. In the dermis, there will be more fibroblasts and each one of them will produce more collagen. This strong collagen booster effect leads to a firmer and more elastic skin. Wrinkles are filled and erased.



### Within the hypodermis, ALGISIUM improves lipolysis

With age, there are more and more adipocytes (fat storing cells). This causes a fat accumulation leading for example to cellulite on the body and eye bags on the face.

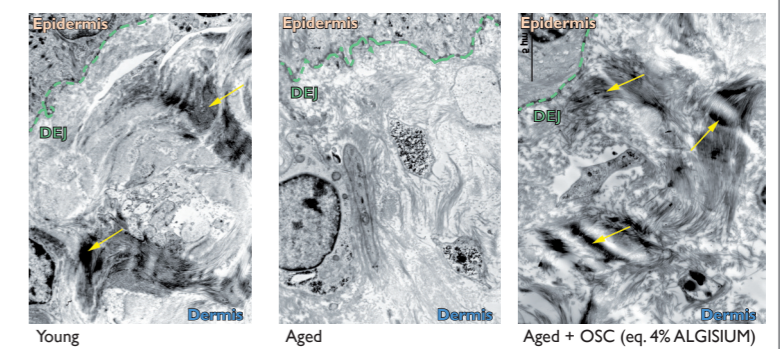
ALGISIUM stimulates adipocyte ability to get rid of the fat by improving lipolysis. A treatment with ALGISIUM improves three folds the amount of fat released by adipocytes. Cellulite is strongly reduced, skin is firmer and eye bags are reduced.



### ALGISIUM improves skin architecture

Because of aging, the whole skin architecture is altered, and this is especially true within the dermis as the thick dark collagen bundles ( ) observed in a younger skin completely vanish.

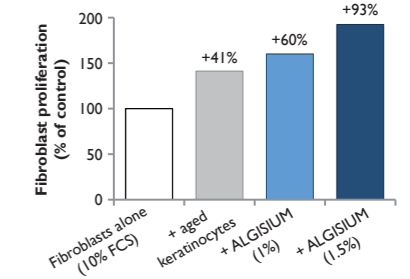
Because of the silicium ability to stimulate fibroblast combined with its affinity for collagen fibers, a treatment with ALGISIUM leads to a complete reorganization of skin fibers for strong and long lasting rejuvenation effect.



### ALGISIUM restores cell communication

Keratinocytes have the ability to support fibroblast proliferation by secreting cytokines that will go from the epidermis through the DEJ and into the dermis where fibroblasts are located. With age, this cross-communication decreases and keratinocytes lose this ability to support fibroblast proliferation. That leads to a generalized impairment of skin architecture.

ALGISIUM stimulates keratinocyte's ability to support fibroblast proliferation and therefore restores an optimal cell communication for global benefits.



# ALGISIUM

## Clinical tests: global benefits

# ALGISIUM

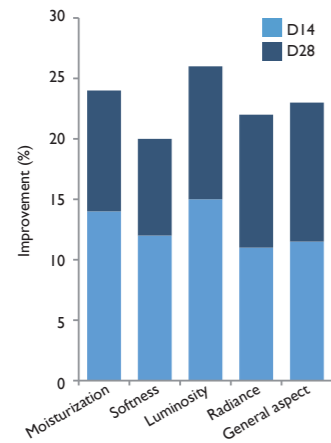
## Technical characteristics

### ALGISIUM FOR FACE CARE

Realized under dermatological control, this test was performed on 35 women aged 32 to 60. All volunteers received a facial treatment with ALGISIUM (5%) twice a day for 28 days.

#### Global benefits

Thanks to ALGISIUM's restructuring properties, global benefits were observed for all skin parameters after only 14 days. The benefits achieved are even higher by the end of the treatment at 28 days.



#### Benefits for and at all ages

At different age, different problems arise. Thanks to ALGISIUM's global benefits, specific problems to all skin type is treated and solved.



#### ANALYTICAL COMPOSITION

|                                    |       |
|------------------------------------|-------|
| Monomethylsilanetriol .....        | 0.3%  |
| Including organic SILICIUM .....   | 0.09% |
| Mannuronic acid .....              | 0.6%  |
| Water and preservative (sqf) ..... | 100%  |

#### PHYSICO-CHEMICAL CHARACTERISTICS

Limpid and colorless liquid.  
pH ≈ 5.0.  
Density at 20°C ≈ 1.0.  
Miscible with water, alcohol and glycol.  
Not miscible in oil.

#### PRESERVATIVES

Different preservative systems are available in order to fit with your requirements. Please contact us for additional details about the available versions.

#### TOLERANCE AND TOXICITY STUDIES

ALGISIUM is perfectly tolerated. Tolerance and toxicity studies were performed using both *in vitro* (cell culture and reconstructed epidermis) and *in vivo* (human volunteers) methods.

#### FORMULATION

Advised doses: 3 to 6%.  
ALGISIUM is not temperature sensitive.  
Formula pH: 4 to 7.  
ALGISIUM is not compatible with high concentrations of calcium salts, alcohol and glycols.

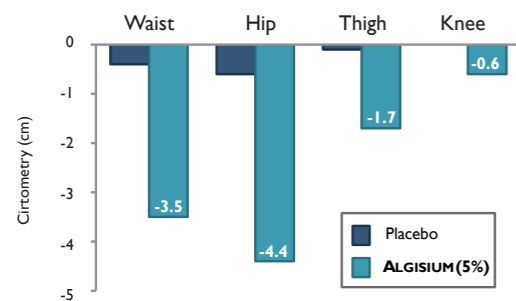
#### AVAILABILITIES

ALGISIUM is available in 5, 30 kg drums and 1 ton container (IBC).

### ALGISIUM FOR BODY CARE

#### Slimming and firming

Realized under dermatological control, this test was performed on 10 women aged 25 to 35. All volunteers received a treatment with ALGISIUM (5%) for ten weeks. Impressive slimming and firming benefits were observed by the end of the treatment.



#### Fast and long lasting hydration

Ten volunteers aged 28 to 52 received a treatment with ALGISIUM (6%) and we measured skin hydration only minutes after a treatment. A dramatic improvement of skin hydration with a strong long lasting effect was measured.

