

*Kalichem*  
a lamberti company



**ACTIVES & OLIVOIL SPECIALTIES**



# A HIGH TECH MANUFACTURER

---

## 5 REASONS TO CHOOSE KALICHEM

### 1. THE FUTURE AT YOUR FINGERTIPS

Anticipating trends and creating the future of dermocosmetics are the pillars of Kalichem's Research and Development.

---

### 2. A VAST SCIENTIFIC KNOW HOW

Our raw materials are the right answer to the most challenging market needs. Kalichem is an innovative company centered around the collective and cumulative learning process that needs a prolonged use and coordination of the skills and efforts of many persons with the end objective of producing competitive ingredients that customers want and are willing to buy.

---

### 3. THE CAPACITY TO ADAPT AND COMBINE

Kalichem possesses the capacity to adopt and combine in an original manner, new and already existing ideas, knowledge and innovations. This is an innovative approach, open and able to absorb knowledge and steer it towards new applications, tailored for new markets.

---

### 4. RIGOROUS QUALITY CONTROLS

We work on rigorous basis from the R&D study to the realization of the product (quality of plants, processes and controls).

Kalichem's priority is validation of processes and managing the improvement of controls, while standardization and reproducibility are our main commitment.

---

### 5. A STABLE, DYNAMIC AND FLEXIBLE REALITY

Kalichem and Lamberti combined have more than 120 years of history full of patents, innovation, awards and love for the scientific research.

---

The cosmetics and personal care **Kalichem R&D** is a fast-paced and highly innovative activity that is driven by science. To remain competitive in an ever-more technologically advanced market, we offer a portfolio that **responds to the changing needs of consumers and facilitates access to safe, innovative products.**

**Our research facilities, and the scientists employed by Kalichem,** delve into all imaginable aspects of beauty and well-being, from consumer behavior, beauty aspiration, skin and hair biology, to new ingredients and technologies. This extensive research allows our clients to create products that respond to ever-changing consumer expectations, **while respecting human health and the environment.**

**R&D activity is continuous and constant,** aimed to give customers also a **very efficient finished product formulation service.**



# Molecular biology & biotechnology

**Innovative**  
**ACTIVES**

**Our Clinical beauty:** raw materials at the highest level of innovation from the best national and international research institutes. Fermentation biotechnologies, peptides, DNA and much more, find their maximum expression in this group of raw materials. In this category: cosmetobiomic post-biotics, double helix DNA and neurocosmetics actives.

# Functionalized hydroxyapatite & biomimetic expertise

**BIOmimetic**  
**SOLUTIONS**

Thanks to the close collaboration with the most advanced and recognized Research Institutes, Kalichem offers in this section a selection of functionalized biomimetic hydroxyapatites that meet many different application: sun protection, deodorization, oral care, skin hygiene, skin lightening and much more.

# Vegetable lipoproteins & lipoaminoacids

**KOLIVOIL**  
**SPECIALTIES**

Made of fatty acids derived from olive oil condensed with different vegetable sources which form an amphiphilic anionic unit. The emulsifiers and the surfactants included in this category are not only effective technical ingredients but also real actives able to provide moisturization, emolliency and much more.



# A GREEN AND SUSTAINABLE COMPANY

## A CONSISTENT PARTNER IN THE DEVELOPMENT OF RAW MATERIALS

Scientific research has always been part of Kalichem's DNA since its foundation in 2003. Every new Kalichem product is the result of the hard work of a number of scientists and researchers who are committed to the research and the realization of products based on vanguard cosmetic technologies. Investing in research is a high priority:

- *A high percentage of the total turnover of the Kalichem Group is dedicated to base research and product development.*
- *A number of specialists are engaged daily in Research Centres which collaborate with Kalichem.*
- *The R&D Kalichem laboratory works closely with the most prestigious universities and the most influential research centres all over the world.*

Kalichem has been awarded with a **platinum medal** in recognition of CSR (Corporate Social Responsibility) achievement for its attention to environment, ethics, labor and human rights by **Ecovadis**, the world's most trusted provider of business sustainability ratings.

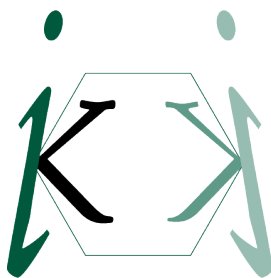
Furthermore, Kalichem is a member of **RSPO** (Roundtable Sustainable Palm Oil) and offers a unique range of Palm Free surfactants and emulsifiers, along with specialties obtained through **up-cycling** and **circular economy** sourcing.

## Sustainability: Ecovadis & RSPO

**KALICHEM SRL** is in the **top 1%** of companies rated by **Ecovadis** and is a member of **RSPO**.



RSPO 9-2407-18-100-00



*Kalichem* s.r.l.  
a lamberti company



Innovative  
**ACTIVES**

---

# Innovative ACTIVES

## ▶ MICROBIOTA CARE ACTIVES

-KALIBIOME AGE, KALIBIOME SENSITIVE, KALIBIOME ECOGENETIC

## ▶ SMART DEODORANT SYSTEM

-DEO HAP DRY

## ▶ DERMATOLOGICAL ACTIVES

-APALIGHT, CIKADERM, OXISOL, KALINAT DNA, KALILIGHT, PEPTILIFT, FILLEDERM

## ▶ FACE AND BODY CARE

-ANTIDERM SP, BATTERIKAL, KALHYGIENIC SKIN, LIPOREDUX, MIX OXI STOP, FLYBLOK

## ▶ SUN CARE ACTIVES

-APALIGHT, OLISUN, OXISOL

## ▶ HAIR CARE

-OLIVOIL FRUTTOSIDE, KERASHAFT V, KERASHAFT Q, HYDROLIZED PROTEINS, STIMUCAP

## ▶ ORAL CARE

-KALIDENT, PHOSPHACTEETH, OLIVOIL GLUTAMATE, KALIBIOME ORIS, KALHYGIENIC ORIS

## ▶ MAKE UP

-FILLEDERM, APALIGHT, KALINAT DNA, KERASHAFT V, KALILIGHT, OLIVOIL AVENATE EMULSIFIER

## ▶ MOISTURIZERS & EMOLLIENTS

-OLIVOIL PCA, KEMIDERM NMF V

---



# ▶ MICROBIOTA CARE ACTIVES

## microbiome balance - postbiotics

Kalibiome postbiotics are pure actives (peptides, bio-surfactants and fatty acids) obtained through a patented bio-fermentation enabling to select pure substances with high specificity of action.

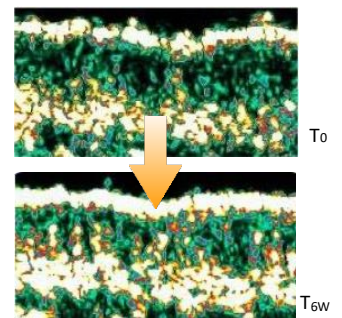
Kalibiome technology was awarded at the IFSCC.

### KALIBIOME [0,1 - 0,2%] A G E

- Advanced antiaging action correlated to skin microbiome variations\* (*in vivo* metagenomic tests)
- Promotes skin redensification (+38% *in vivo* tested) by increasing hyaluronic acid/collagen synthesis and reducing skin extensibility by 76%
- Skin regeneration features comparable to EGF, *in vivo* proven anti-wrinkle action, ideal for photoaging treatments

\*Main skin bacteria regulated: *Dialister*, *Alloprevotella*, *Stenotrophomas*, *Prevotella*, *Faecalibacterium*

SKIN REDENSIFICATION  
VARIATION AFTER 6 WEEKS  
(white and green bands represent collagen and dermal matrix)

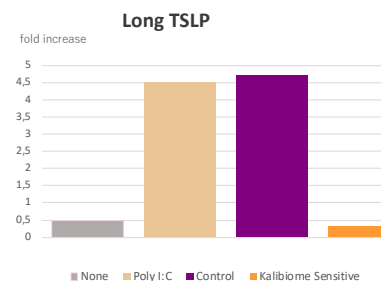


### KALIBIOME [0,1 - 0,2%] S E N S I T I V E

- Specific for sensitive and atopic skin, it reduces the skin itching mediator by 800% vs control
- It reduces skin irritation, redness (-15%), through microbiome\* and immune system modulation along with skin keratinocytes tight junctions reinforcement (ZO-1 protein)
- It promotes *in vivo* skin hydration (+20%) and anti-oxidant (+110%) actions, inhibition of S.Aureus biofilm formation

\*Main bacteria regulated: *B.Diminuta*, *Rhodococcus*, *S.Aureus* and *Pseudomonas* biofilm inhibition

LONG TSLP REGULATION  
(itching mediator)

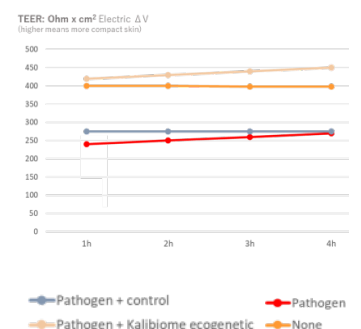


### KALIBIOME [0,1 - 0,2%] E C O G E N E T I C

- Specific for microbiome rebalancing\* (*in vivo* metagenomic tests) and skin defense reinforcement
- Keeps the integrity of the barrier function (reduces TEWL by 43%), even in presence of skin pathogens and inhibits bacterial biofilm formation
- Promotes skin protection by counteracting the effects of mechanical stress on the dermis (prolonged use of face masks etc.) through a replumping action (+16%)

\*Main bacteria regulated: *Parvimonas*, *Dialister*, *Psychrobacter*, *Brevundimonas*, *Prevotella*, *S.Aureus* biofilm inhibition

SKIN BARRIER INTEGRITY IN  
PRESENCE OF PATHOGENS

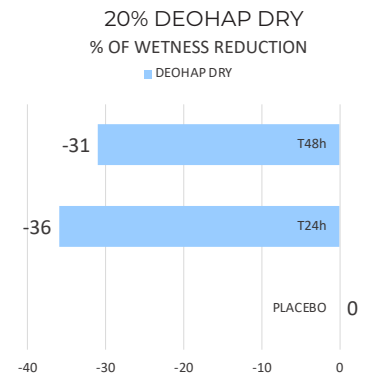


## ▶ SMART DEODORANT SYSTEM

Skin friendly and not irritant, able to effectively adsorb odors and sweat, ensuring a long-lasting natural dry feel with a gentle action. A state of the art approach to minimize the safety concerns related to the use of aluminum salt based actives commonly found on the market.

### DEHAP [10 - 20%] DRY

- Deodorizing and sweat control mineral active based on biomimetic hydroxyapatite functionalized with magnesium and zinc
- Does not contain aluminum salts
- Long lasting sweat reduction (48h) and skin tolerability
- Adsorbs malodorous substances ( e.g. urea, ammonia) more effectively than market benchmarks

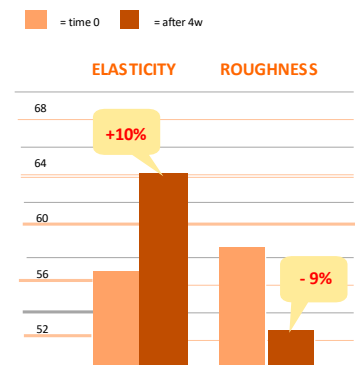


## ▶ DERMATOLOGICAL ACTIVES

The era of cosmetic ingredients as simple “decorating” actives is over. Today’s focus is oriented towards using ingredients aimed to provide dermatological added value. Kalichem’s actives work through innovative mechanisms of action through specific pathways to bring physiological benefits at different levels to improve the skin condition and prevent aging.

### apalight [1 - 6%] SUN CARE & FACE CARE

- Hides skin spots and wrinkles since the first application through a soft focus effect
- Promotes skin firmness through reduction of skin stretchability (-17%)
- Increases skin elasticity and smoothness after 1 month
- Boosts sun protection comparably to TiO<sub>2</sub>
- Biomimetic ingredient with optimal safety profile, Cosmos ICEA approved versions available



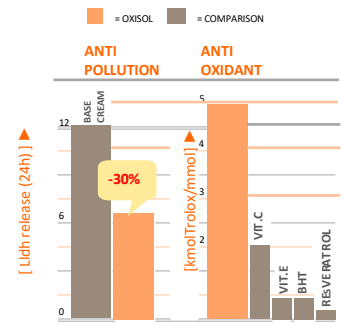
# CIKADERM [1 - 5%]

- Contains Croton Lechleri (“dragon’s blood” extract), popular active from South America
- Increases collagen, fibronectin and integrins production
- Prevents the formation of stretch marks
- Reduces itching, stretch marks roughness and redness
- Targeted for restoring treatments for dry hands and damaged skin
- Increases skin elasticity; one of the most effective anti-aging actives found in nature



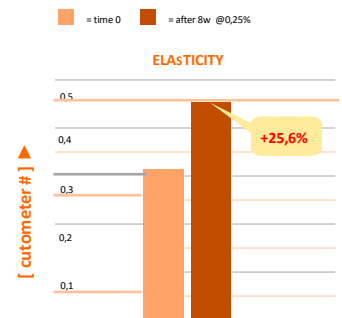
# Oxisol [0,1 - 3%]

- Reduces by 30% the pollution related toxicity
- Antioxidant much more effective than Vit.C, Vit. E., Resveratrol
- Stable structure, it works faster and longer than common antioxidants
- Boosts UV-A & UV-B protection
- Ideal for obtaining antiaging creams with SPF and UVA Protection Factor
- Reduces the ageing process caused by InfraRed radiations
- Watersoluble and photostable



# KALINAT DNA [0,1 - 0,5%]

- Decreases skin wrinkle depth by 135% when compared to placebo
- Immediate skin lifting promoted by the DNA double helix structure
- Increases skin elasticity by 26% and skin thickness by 10%, with a replumping action
- Increases the production of stem cells and fibroblasts
- Immune system activation after UV exposure
- Skin and mucosa regenerating action (for Medical Devices & Cosmeceuticals)





# KaliLight [1 - 5%]

FUNCTIONALIZED HYDROXYAPATITE

- Most innovative whitening active at PCHi China
- Biomimetic hydroxyapatite functionalized with glutathione and cysteine
- Skin spot correction both on short and long term
- **Soft-focus effect:** immediate coverage of skin flaws
- Long term effect: **reduction of eumelanin** (dark pigment) through tyrosinase inhibition and **increase of pheomelanin** (bright pigment)
- **+27,3% lightening activity** compared to benchmark actives
- **Oil control action:** it adsorbs sebum fatty acids 43% better than placebo



# PEPTI lift [2 - 10%]

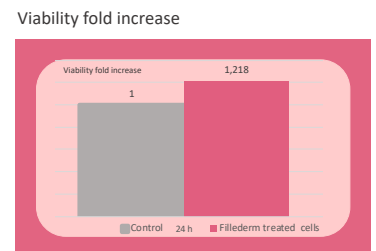
- Based on a **biomimetic endorphin**, included in a **delivery system containing CLA Glutathione**
- **Reduces wrinkle volume by 55%** and **increases elasticity by 49%**
- Proven active in reducing forehead and frown lines, nasolabial folds and crow's feet
- Promotes **damaged skin regeneration** with an **EGF like activity**
- Modulates the expression of skin growth factors and MMP (metalloproteinases) leading to **skin revitalization and retexturizing**



# FILLEDERM [0,3 - 3%]

RED POWER

- Based on marine biomineral obtained through **up-cycling and circular economy sourcing**
- Natural **anti-wrinkle filler** with **skin tone evening, smoothing and texturizing properties**
- Boosts the production of epidermal keratinocytes cells (+22%) and promotes a **soft focus effect**
- Increases in vivo **skin firmness, density and smoothness**
- **SPF 15** measured in vitro



**KERATINOCYTES  
PROLIFERATION INCREASE  
+22%**

OTHERS: CHECK CHAPTERS

- **MICROBIOTA CARE ACTIVES** (KALIBIOME AGE, SENSITIVE, ECOGENETIC)

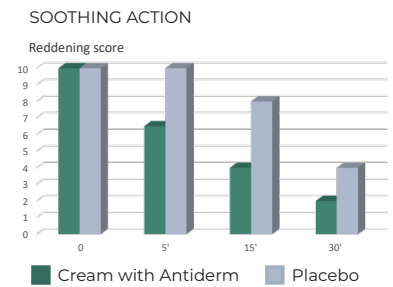
# ▶ FACE AND BODY CARE

Kalichem actives for face/body care are based on patented technologies and/or the use of specialties whose action is addressed to various applications.

Kalichem innovations are designed through the selection of natural actives and the creation of synergies between them.

## ANTIDERM SP [3 - 5%] DEREDDENING

- Dereddens the skin and increases moisturization
- Composed of natural anti-inflammatory, antiseptic, emollient and moisturizing compounds (Panthenol, Allantoin, Glycyrhretinic Acid, Copaiba Balsam, Olive Oil)
- Targeted for sensitive skin, anti-couperose, soothing, baby products



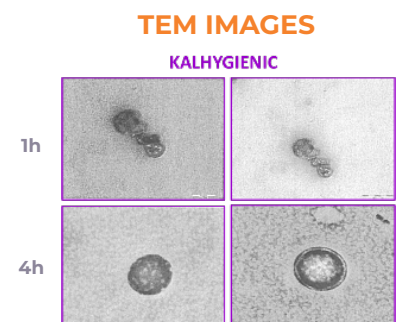
## BATTERIKAL [3 - 5%] F

- Combination of vegetable oils with specific anti-microbial action
- Based on Manuka Oil, Copaiba Balsam, Black Currant Oil, Olive Oil
- Significant effectiveness against Gram + bacteria like *Propionibacterium acnes* and *Staphylococcus aureus* and fungi such as *Trichophyton* spp. and *Candida albicans*
- Ideal for deodorants, acne treatments and much more

MIC	%
CANDIDA ALBICANS	1,0
STAPHYLOCOCCUS AUREUS	0,1
PROPIONIBACTERIUM ACNES	0,3

## KALHYGIENIC [7 - 14%] NEW

- Patented specialty composed of biomimetic hydroxyapatite functionalized with a cationic surfactant
- Long lasting bio-protection and hygiene (5 hours protection after single application)
- Alters morphology and viability of Coronavirus and pathogen bacteria, with 99% reduction of the infectivity index
- Ideal to make cosmetics products that boost and support the action of soaps and sanitizers for the prevention of pandemic diffusion
- Increases skin compactness (skin barrier integrity keeping)



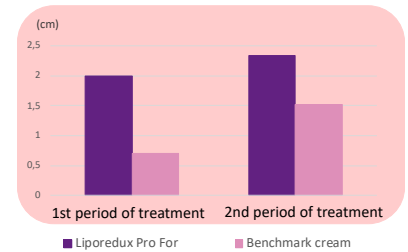
Kalhygienic induces alteration of the envelope of the Coronavirus both after 1 and 4 hours following single application

# LIPO REDUX [1 - 5%]

PRO FOR

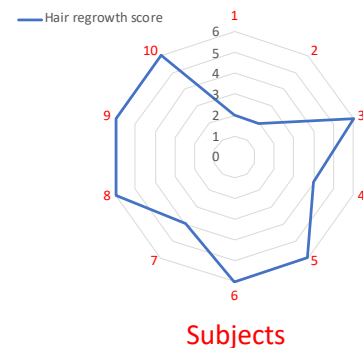
- Combination of 3 synergistic lipolytic compounds (CLA-Carnitine-Forskolin)
- CLA increases carnitine absorption and promotes the synthesis of physiological carnitine
- Reduces the thigh circumference of -2,34 cm and the orange peel effect
- Gives a more effective long term action than a market benchmark (17-week test in beauty clinic)
- **No side effects**, no interference with cardiovascular system and thyroid

## MEDIUM HIGH CIRCUMFERENCE REDUCTION



# MIX OXI STOP [5 - 20%]

- Slows down hair regrowth by 30-40%
- Helps reduce the hair pigmentation, through the reduction of the post depilatory skin stressing conditions (Aloe, Chamomilla, Mimosa extracts)
- Retards hair re-growth (Papaya extract)
- Reduces irritation and redness after depilation
- Ideal for depilatory creams, post-depilation follow up and after shave treatments



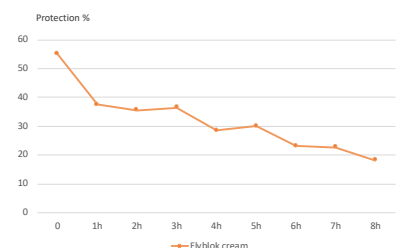
### Re-grown hairs score parameters:

- 0: No variation
- 2: Hair regrown finer
- 4: Hair regrown significantly finer
- 6: Hair regrown finer and depigmented

# FLYBLOK [3 - 5%]

- Active ingredient from *Catalpa Bignonioides* leaf extract (green and sustainable philosophy)
- Active on a wide range of species (flies, mosquitoes, lice etc), ideal for human & PET care
- Promotes a protection percentage vs tiger mosquitoes of +55% (arm in cage test, at 3% of use), and keeps working until 8 hours
- In vivo tests demonstrate a reduction by 80% of number of mosquitoes bites compared to the placebo treatment

## ARM IN CAGE TEST



### OTHERS: CHECK CHAPTERS

- **MICROBIOTA CARE ACTIVES** (KALIBIOME AGE, SENSITIVE, ECOGENETIC)
- **DERMATOLOGICAL ACTIVES** (APALIGHT, CIKADERM, KALINAT DNA, KALILIGHT)



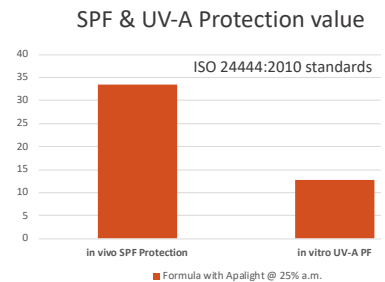
# ▶ SUN CARE ACTIVES

The range includes sunscreen boosters, pre-solubilized filters complex and actives able to reduce the UV related stress on the dermis, erythema and after-sun actives.

## apalight [3 - 25%]

SUN CARE & FACE CARE

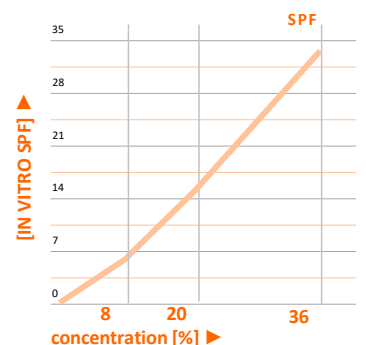
- Physical sunscreen booster
- No whitening effect, light texture (no mineral touch perception)
- It boosts SPF like TiO<sub>2</sub> when combined to organic filters; it also boosts SPF in combination to mineral filters
- In order to declare SPF, it must be combined with registered filters
- Environment friendly: HAP is found in sea eco-system
- Cosmos approved versions available



The formula with Apalight @ 25% a.m + 4% ZnO gave SPF value of 33 and UV-A protection factor of 13

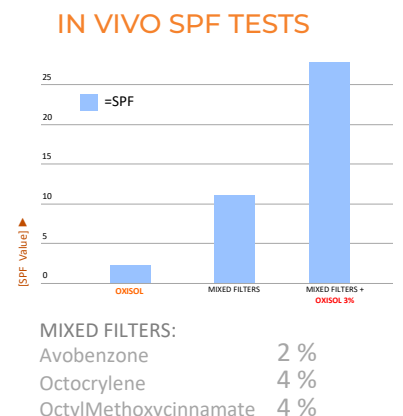
## olisun [5 - 35%]

- Innovative technology of pre-solubilized filters for cold emulsions making
- Allows having already solubilized and stable UV-A & UV-B filters (including some filters traditionally tough to work with)
- Gives SPF lotions and sprayable emulsions working in cold process, through simple water addition
- With addition of acrylic polymers it gives SPF gels; with addition of lipidic consistency factors gives SPF creams



## Oxisol [0,5 - 3%]

- SPF and UVA protection booster
- Increases SPF more than approved UV-B filters
- Increases UVA-Protection factor, watersoluble and photo-stable
- Dualistic sunscreen booster: free radicals scavenger, ideal for photo-aging prevention, anti-pollution and infrared related aging



OTHERS: FOR AFTER-SUN ACTIVES, CHECK CHAPTERS

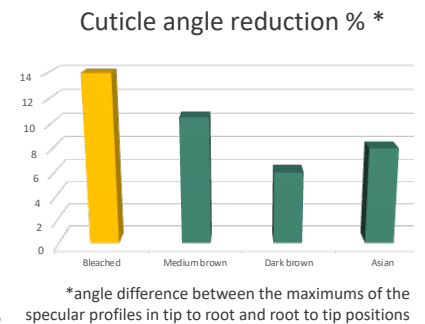
- **MICROBIOTA CARE ACTIVES** (KALIBIOME AGE, SENSITIVE, ECOGENETIC)
- **DERMATOLOGICAL ACTIVES** (KALINAT DNA)
- **FACE AND BODY CARE** (ANTIDERM SP)
- **MOISTURIZERS AND EMOLLIENTS** (OLIVOIL PCA, KEMIDERM NMF V)

# ▶ HAIR CARE

Working on the hair health has become one of the greatest challenges in cosmetics. Kalichem actives work both on the health status of the hair bulb, and on the upper structures composing it, through several mechanisms (moisturizing, restructuring, volumizing, illuminating, nourishing and film-forming).

## OLIVOIL FRUTTOSIDE [2 - 20%]

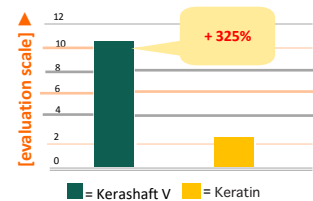
- Conditioning surfactant based on olive oil fatty acids, fructose and oat aminoacids
- Increases hair shining and softness more than APGs; reduces hair cuticle angle by ~10%
- Hyper delicate on skin and mucosa (ideal for “tear free” products with low eye irritation)
- More delicate (TEWL) than mild surfactant benchmarks
- **Foam builder and booster**; viscosity booster; to be used as primary or secondary surfactant
- Cosmos Ecocert approved versions available



## KERASHAFT V [0,5 - 10%]

- 100% vegetable aminoacids and polypeptides complex with performances superior to keratin
- Hair surface conditioning and hair shaft restructuring (+325% sulfur delivered on the hair compared to keratin)
- Substantivity, volumizing, repairing, moisturizing, resistance to traction and luminosity increase
- 100% green and sustainable, Cosmos approved
- Ideal for all hair leave-on and rinse off product

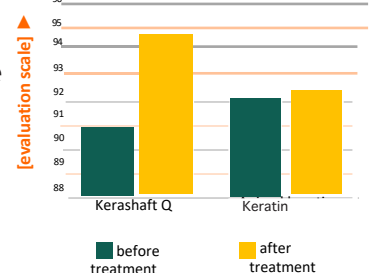
EDX MICROANALYSIS  
Sulphur Atoms Concentration (%)  
Found in Treated Hair



## KERASHAFT Q [0,5 - 10%]

- Vegetable derived complex for advanced hair treatments
- Hair conditioning and detangling effects given by an effective anti-static action
- Nourishes and repairs the hair by increasing sulfur available for disulfide bonds formation
- Specific for “professional” treatments
- Promotes hair shining and increases resistance during and after hair drying and straightening
- To be used in shampoos, conditioners, masks

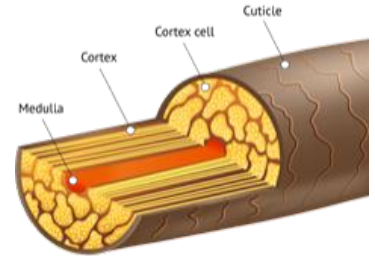
LUMINOSITY (L\*)



## HYDROLIZED PROTEINS

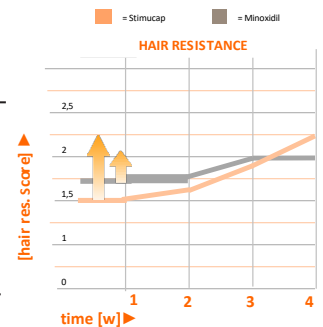
[0,5 - 5%]

- **Kemicher Foksnab/ Hydrolyzed Keratin:** Milestone hair care active specific for nourishing the shaft and regenerating damaged hair
- **Kemisilk 20/ Hydrolyzed Silk:** Aminoacids and polypeptides from Sericin, known protein providing film forming, velvety and silky after feel.
- **Kemigran 40/ Hydrolyzed Wheat Protein:** volumizing and conditioning active, specific for hair lotions, masks, balms, shampoos
- **Kalirice 20/ Hydrolyzed Rice Protein:** able to promote moisturizing, conditioning, tensor and nourishing action.
- **Avenokal Pro 20/ Hydrolyzed Oat Protein:** able to promote soothing and film forming features
- **Kemisoy 20/ Hydrolyzed Soy Protein:** protein hydrolysate from soy
- **Kemilat 30/ Hydrolyzed Milk:** protein hydrolysate from milk



## stimucap [1 - 3%]

- Based on the combination of the synergistic specialties **CLA Glutathione and Sodium DNA**
- CLA Glutathione gives a combined anti-oxidant and anti-inflammatory action to **counteract hair fibrosis and stress**
- Sodium DNA has been proven to **thicken and increase hair count, through a strong regenerative and proliferative action**
- **Tested in vivo vs Minoxidil**, it gives better resistance to traction (less hair fallen) and is more pleasant during and after the application
- **No side effects**, it is very well tolerated and with a **high functional impact**



OTHERS: CHECK CHAPTERS

- **MICROBIOTA CARE ACTIVES** (KALIBIOME SENSITIVE, ECOGENETIC)
- **MOISTURIZERS AND EMOLLIENTS** (OLIVOIL PCA, KEMIDERM NMF V)

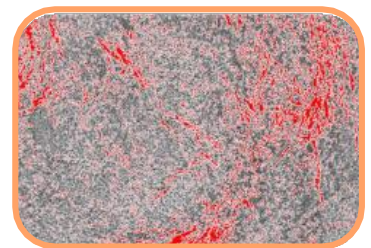


## ▶ ORAL CARE

Changing the rules of oral care. Revolutionary as it may sound, that's what happened with Kalichem oral care actives. The introduction of the biomimetic Hydroxyapatite radically changed the approach in oral care and increased the functionality standard in oral hygiene.

### KALIDENT [3 - 15%] ORAL CARE

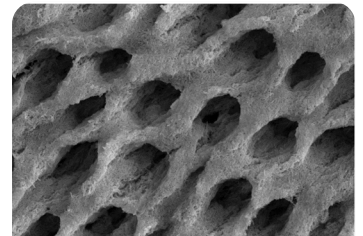
- Remineralizing active ingredient
- Option to fluorides for new generation toothpaste formulations
- Microlesions repairer
- Ideal for caries and tartar build up prevention
- Filler of dental scratches, it prevents hypersensitivity
- Increases by one shade of white the color of the tooth
- Cosmos approved version available



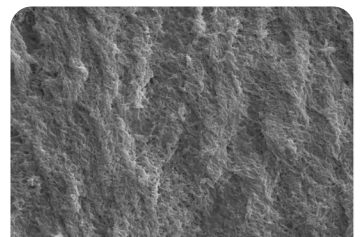
### P HOSPHACTEETH [10 - 15%] REMINERALIZER

- Promotes the in vivo formation of Calcium Hydroxyapatite, Carbonate Apatite and Fluoride Apatite
- Increases the tooth protection against the acidic erosion, through an increase of enamel resistance
- Increases 4 times the delivery of fluoride and carbonates in saliva and tooth surface in comparison to market benchmark
- Increased bio-availability and delivery on the tooth thanks to its citrates content (bio-mimicry mechanism)
- Specific for remineralizing, anti-hypersensitivity and anti-caries support treatments

The teeth were subject to induced the demineralization and then treated with control and phosphacteeth gel



control gel

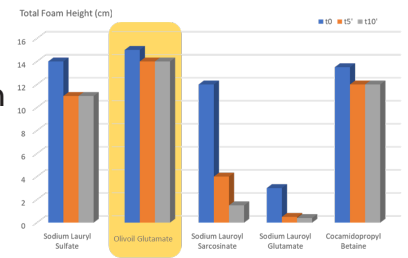


phosphacteeth gel

# OLIVOIL GLUTAMATE [2 - 5%]

- Olivoil Glutamate: based on the combination of **olive oil fatty acids with sugar beet derived Glutamic Acid**
- Mild surfactant with delicate and efficient **cleansing action on tooth and gums**
- Foaming agent performing **better than SLS, betaine and sarcosinates**
- Surfactant with **neutral taste**
- **Cosmos approved** versions available and proven "water saving" profile (environmental sustainability factor)

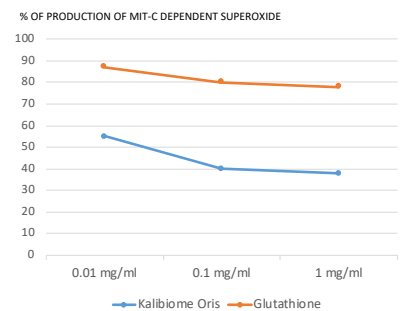
FOAM HEIGHT TEST METHOD:  
ASTM D 1173 (1980) ISO 696 (1975)



# KALIBIOME [0,05 - 0,5%] ORIS

- Postbiotics ideal for **sensitive gum and periodontitis support treatments**
- Promotes **gum inflammation reduction** through a modulatory activity on immune system cytokines
- Exerts **bacteriostatic action against oral pathogens** (eg. Pseudomonas Aeruginosa)
- **Reduces free radicals formation**, aimed to counteract oral dysbiosis and inflammation triggering
- **Promotes the oral mucosa barrier strengthening**, through the increase of ZO-1 tight junctions (leading to oral keratinocyte cells sealing)

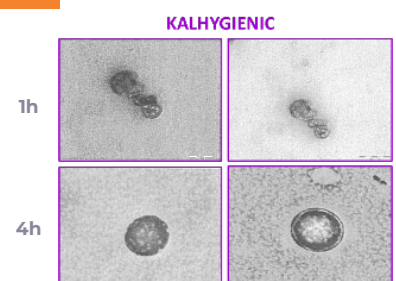
FREE RADICALS REDUCTION IN  
ORAL MOUTH CELLS



# KALHYGIENIC [7 - 14%] **NEW**

- International patent
- Promotes oral mouth hygiene (toothpaste and mouthwashes applications)
- Based on **functionalized biomimetic HAP**
- **Tooth remineralization and activity vs biological agents**
- **Long lasting bio-protection against infectious agents**
- **Single application protects oral mouth up to 4-5 hours**
- **Proven activity vs bacteria and viruses** (including S.Mutans and Coronavirus)

TEM IMAGES



Kalhygienic induces alteration of the envelope of the Coronavirus both after 1 and 4 hours following single application

# ▶ MAKE UP

Today the industry is running on a new path trying to reconcile the traditional approach based on the use of synthetic ingredients with green specialties. Kalichem enters this market segment with cutting edge technologies.

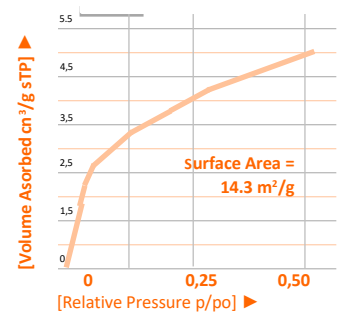
## FILLEDERM

RED POWER

[0,3 - 3%]

- Pink colored powder to be used in make up
- Obtained from **up-cycling sourcing compliant to circular economy trend** (jewels manufacturing industry waste)
- **Soft Focus effect better than silica** and benchmarks (superior surface area and intensity of light transmission)
- **Texturizing agent** for make-up powders compact foundations, colored creams and emulsions
- **Skin tone evening**
- Proven **SPF boosting, skin replumping and brightening**

ADSORBING POWER



## apalight

SUN CARE & FACE CARE

[1 - 25%]

- Biomimetic mineral for make up applications
- **Soft focus effect**
- Gives immediate **glow effect** (it hides skin wrinkles and blemishes)
- **+10% skin elasticity, -10% wrinkle depth, skin compactness increase** ( in vivo tested)
- Ideal for loose powders, compact foundation and emulsions
- **Boosts SPF protection** (lipsticks and color cosmetics)
- **Cosmos approved versions available**

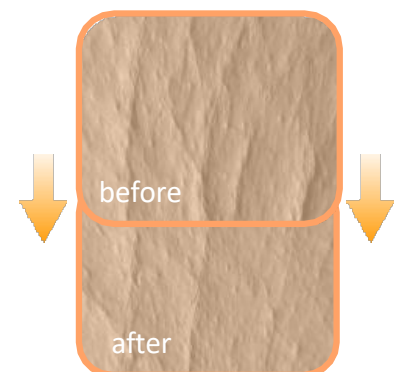
SOFT FOCUS EFFECT



## KALINAT DNA

[0,1 - 0,5%]

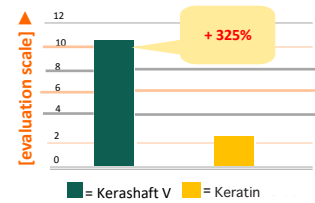
- **Decreases skin wrinkle depth by 135%** when compared to placebo
- **Immediate skin lifting** promoted by the DNA double helix structure
- **Increases skin elasticity by 26%** and skin thickness by 10%, with a replumping action
- **Increases the production of stem cells and fibroblasts**
- **Immune system activation after UV exposure**



# KERASHAFT V [0,5 - 10%]

- 100% vegetable aminoacids and polypeptides complex with performances superior to keratin
- Hair surface conditioning and eyelashes restructuring (+325% sulfur delivered compared to keratin)
- Substantivity, volumizing, repairing, moisturizing, resistance to traction and luminosity increase
- 100% green and sustainable, Cosmos approved
- Ideal for mascara application

## EDX MICROANALYSIS Sulphur Atoms Concentration (%) Found in Treated Hair



# KaliLight [1 - 5%]

## FUNCTIONALIZED HYDROXYAPATITE

- Most innovative whitening active at PCHi China
- Biomimetic hydroxyapatite functionalized with glutathione and cysteine
- Skin spot correction both on short and long term
- **Soft-focus effect:** immediate coverage of skin flaws
- Long term effect: **reduction of eumelanin** (dark pigment) through tyrosinase inhibition and **increase of pheomelanin** (bright pigment)
- **+27,3% lightening activity** compared to benchmark actives
- **Oil control action:** it adsorbs sebum fatty acids 43% better than placebo

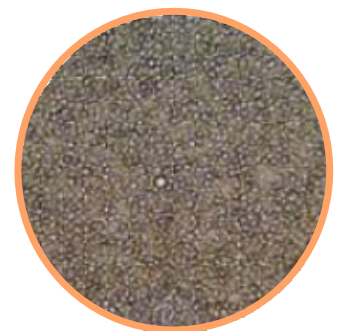


# OLIVOIL AVENATE [2 - 10%]

## EMULSIFIER

- Liquid crystal emulsifier based on olive oil fatty acids and oat polypeptides
- Silicon like texture, medium-quick absorption
- Ideal for hyper-fluid sprayable emulsions, serum, creams, sunscreens, foundation and mascara

## EMULSION OBSERVED THROUGH OPTICAL MICROSCOPE



## OTHERS: CHECK CHAPTERS

- **MICROBIOTA CARE ACTIVES** (KALIBIOME AGE, SENSITIVE, ECOGENETIC)
- **HAIR CARE ACTIVES** (KERASHAFT Q, STIMUCAP)



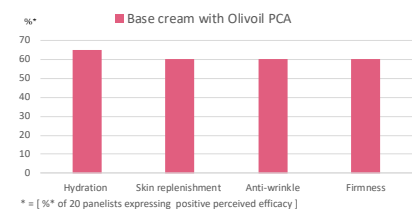
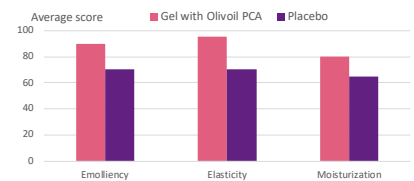
# ▶ MOISTURIZERS & EMOLLIENTS

Having a moisturized skin means working on its epidermis, and more specifically on the hydro-lipidic film. Such film is composed of fats and hydrophilic substances, whose balance is fundamental in keeping the skin properly moisturized. Kalichem actives work on both such factors, improving physiologically the skin hydration.

## OLIVOIL [1 - 10%] PCA

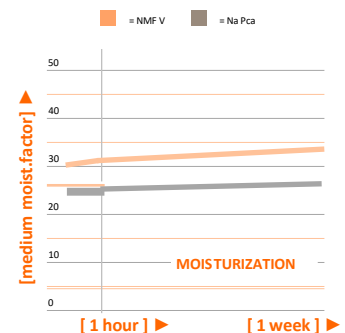
- Hydrosoluble olive oil based emollient functionalized with PCA
- Skin moisturizer working on the hydro-lipidic film
- Green Silicon
- Composed of PCA (key component of skin Natural Moisturizing Factor) to hydrate skin surface through water binding
- 100% Palm free composition
- Moisturizing, emollient and tensor action in leave on products
- Foam booster, emollient and gentle surfactant in rinse off systems

### PERCEIVED EFFICACY



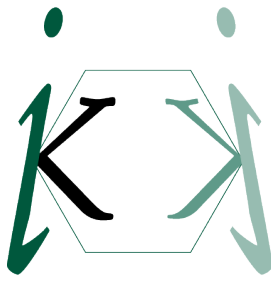
## KEMIDERM NMF V [1 - 5%]

- Complex containing the physiological natural moisturizing factor (NMF) hydrating molecules
- Based on sugars, aminoacids, PCA, alfa-hydroxyacids
- Increases directly the skin moisturization binding water from the environment to skin surface
- Vegetable derived ingredient
- Ideal for leave-on and rinse-off application



OTHERS: CHECK CHAPTERS

- **MICROBIOTA CARE ACTIVES** (KALIBIOME AGE, SENSITIVE, ECOGENETIC)



*Kalichem* s.r.l.  
a lamberti company



*k* OLIVOIL *k*  
SPECIALTIES



## ▶ SURFACTANTS

- OLIVOIL AVENATE
- OLIVOIL GLUTAMATE
- OLIVOIL SURFACTANT
- OLIVOIL FRUTTOSIDE
- OLIVERICE
- POTASSIUM OLIVATE

## ▶ EMULSIFIERS & EMOLLIENTS

- OLIVOIL GLUTAMATE EMULSIFIER G-PF
- OLIVOIL AVENATE EMULSIFIER
- OLIVOIL GLUTAMATE EMULSIFIER
- OLIVOIL EMULSIFIER
- OLIVOIL PCA
- OLIVE MILK

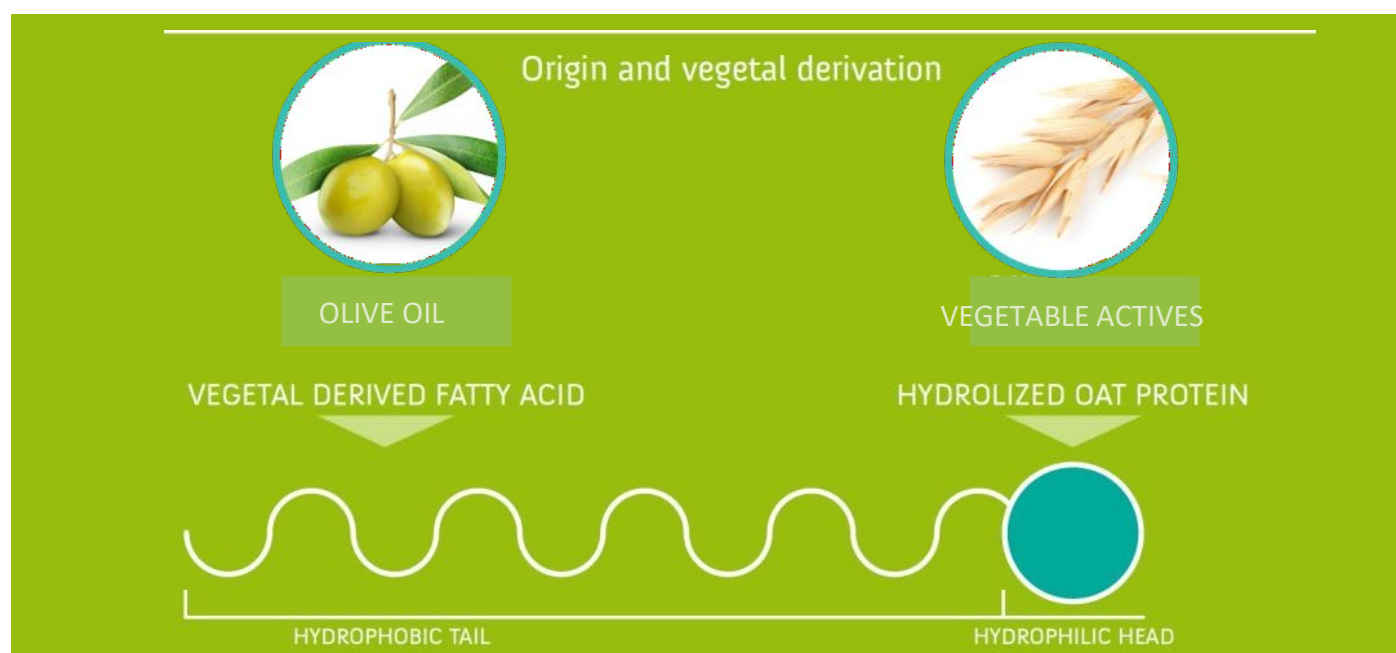


# OLIVOIL TECHNOLOGY

## ITALIAN INNOVATION FROM THE OLIVE FRUIT

### THE TECHNOLOGY

Combining the best of vegetal oils and different natural sources allowed Kalichem to achieve new molecules having relevant functional properties. These specialties can be used to formulate “100% natural” finished products that are suitable for sensitive skin, baby-care, hair-care and personal-hygiene. Furthermore, besides being extremely performing as vehicle ingredients, thanks to their special composition they may act as functional substances with protective, moisturizing, soothing and restoring features. As for their environmental impact, they are characterized by high biodegradability (according to the CEE regulation N.82/242 OECD Method).



### OLIVOIL FAMILY LABELLING AND CERTIFICATIONS

Olivoil family products are specialties ideal for “green” certified and vegan cosmetics: approved by Cosmos Ecocert, they can be used in end-cosmetics certified by Cosmos and other certifying labels (eg. Natrue and many others) both in natural and organic cosmetics. Their composition is based on olive oil fatty acids: all the surfactants and emollients have a 100% palm free composition, whereas the emulsifiers are available both in RSPO and PALM FREE versions. Their use is approved in all cosmetics regulatory systems, including China.



# ▶ SURFACTANTS

- Vegetable/Vegan derived surfactants
- Patented composition (based on the use of olive oil fatty acids functionalized with vegetable aminoacids and sugars)
- Ecosustainable and highly biodegradable
- Water saving features
- Ideal for formulating eco-certified cosmetics
- PALM FREE composition

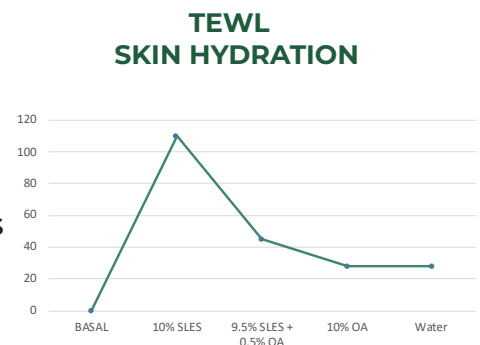


COSMOS  
APPROVED



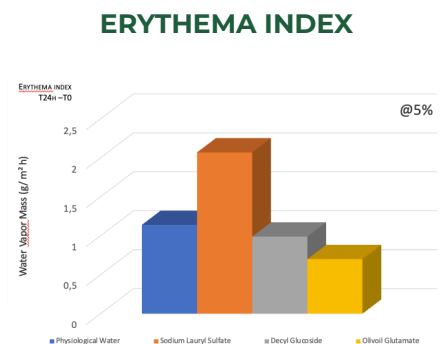
## OLIVOIL AVENATE [2 - 20%]

- Contains olive oil fatty acids and oat polypeptides
- Ideal for sensitive skin, baby care, extra-mild cleansers
- Reduces sulfate based systems TEWL more than 50% when used at 2%



## OLIVOIL GLUTAMATE [2 - 20%]

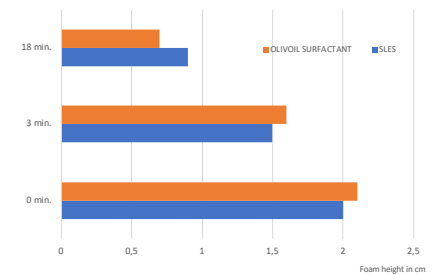
- Contains olive oil fatty acids and glutamic acid from sugar beet
- Water saving features, ideal base for eco-sustainable and biodegradable washes
- Foam building and boosting features
- To use as primary surfactant for sulfate free cleansers or secondary surfactant
- More delicate than physiological water (in vivo tested)



# OLIVOIL SURFACTANT [2 - 20%]

- Based on olive oil fatty acids and vegetable polypeptides
- Ideal for hair care, face and body care applications
- Emollient, moisturizing action in vivo tested

## FOAM HEIGHT TEST METHOD ASTM D 1173 (1980) ISO 696 (1975)

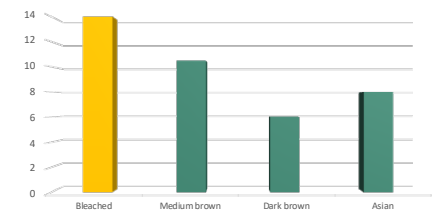


OS solution @ 1 % a.m.

# OLIVOIL FRUTTOSIDE [2 - 20%]

- Based on soothing oat aminoacids, olive oil fatty acids and fructose
- Ideal for hair care, face and body care applications
- Hair conditioning, detangling, shining features.
- Low TEWL and eye irritation (ideal for “tear free” formulations)
- Foam builder/booster

## CUTICLE ANGLE REDUCTION (%)

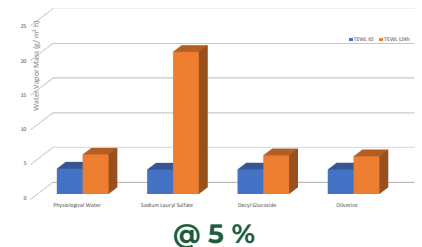


OF solution @ 1.6 % a.m.

# OLIVERICE [2 - 20%]

- Based on olive oil fatty acids and rice polypeptides
- Foam builder/booster
- Low TEWL, ideal for sensitive skin and hair care applications

## TRANS EPIDERMAL WATER LOSS TEST



@ 5 %

# POTASSIUM OLIVATE [2 - 20%]

- Liquid soap based on olive oil fatty acids
- Main ingredient of several traditional soap recipes (Marseille, Aleppo, Castile, Nablus soaps)
- Ideal for both personal care and household applications



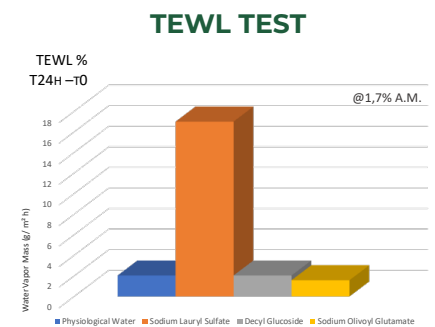
# ▶ EMULSIFIERS & EMOLLIENTS

- Vegetable/Vegan derived emulsifiers and emollients
- Patented composition (based on the use of olive oil fatty acids functionalized with vegetable aminoacids)
- Ecosustainable and highly biodegradable
- Ideal for formulating eco-certified cosmetics
- PALM FREE composition and RSPO mass balance grades available



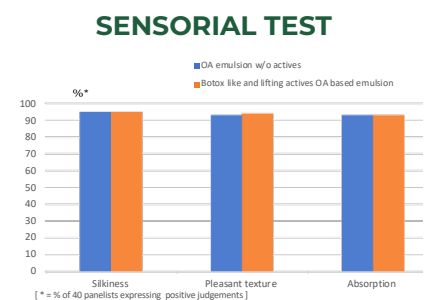
## OLIVOIL [1 - 10%] GLUTAMATE EMULSIFIER G-PF

- 100% palm free, preservatives free
- Silicon like sensorial effect
- Lipo-aminoacid based on olive oil fatty acids and glutamic acid from sugar beet
- Moisturizing action and instant tensor effect
- Ideal for both hyper-fluid and viscous emulsions (depending on concentration of use)



## OLIVOIL [1 - 10%] AVENATE EMULSIFIER

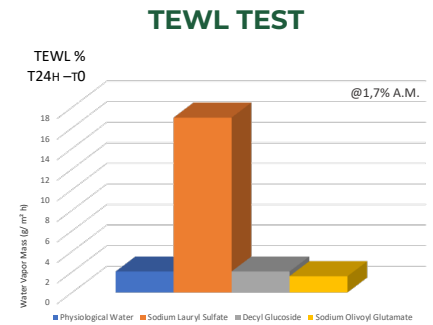
- Liquid crystal emulsifier based on olive oil fatty acids and oat polypeptides
- Moisturizing action and instant tensor effect
- Silicon like texture, medium-quick absorption
- Ideal for both hyper-fluid and viscous emulsions (depending on concentration of use)
- RSPO mass balance grade available (tradename: Olivoil avenate emulsifier MB)



# OLIVOIL

## GLUTAMATE EMULSIFIER [1 - 10%]

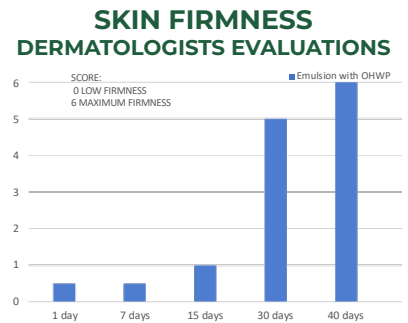
- Liquid crystal emulsifier based on olive oil fatty acids and glutamic acid from sugar beet
- Silicon like texture
- Medium absorption and rich after feel
- Moisturizing action and instant tensor effect
- Ideal for both hyper-fluid and viscous emulsions (depending on concentration of use)
- **RSPO mass balance grade available** (tradename: Olivoil glutamate emulsifier MB)



# OLIVOIL

## EMULSIFIER [1 - 10%]

- Liquid crystal emulsifier based on olive oil fatty acids and vegetable polypeptides
- Silicon like texture
- Medium-quick absorption
- Ideal for both hyper-fluid and viscous emulsions (depending on concentration of use)
- **RSPO mass balance grade available**

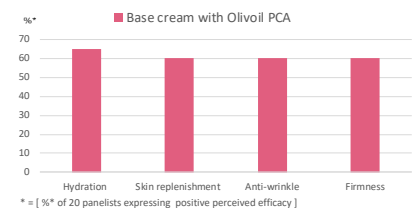
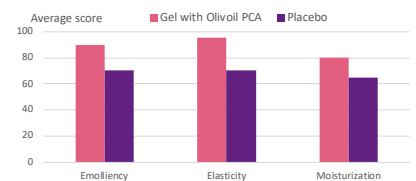


# OLIVOIL

## PCA [1 - 10%]

- Hydrosoluble olive oil based emollient functionalized with PCA
- Green Silicon
- Composed of PCA (key component of skin Natural Moisturizing Factor) to hydrate skin surface through water binding
- 100% Palm free composition
- Moisturizing, emollient and tensor action in leave on products
- Co-emulsifier to use in cold process for SPF lotions and creams development

### PERCEIVED EFFICACY



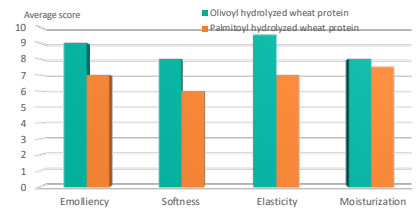


# OLIVE MILK [1 - 90%]

Olive milk is a ready to use fluid emulsion to use:

1. As it is, for the development of dermo-compatible milks and lotions.
2. In combination to polymers and specific excipients, to build emulsions in cold process.
3. As an emollient and skin barrier restoring active in leave on and rinse off applications

## PERCEIVED EFFICACY



## SERVICES

### TAILOR MADE

A team of experts always available and the many collaborations with valued Universities and Research Centers raise the level of professionalism and quality of our team. According to a client brief the customer is walked through each step of the fine tuning of the project and of the desired claims' substantiation

### TESTING SERVICE

Our company offers services in the field of safety and efficacy valuations of dermo-cosmetological products, medical devices. Experts in clinical and laboratory testing, consulting and technical-scientific, marketing and regulatory assistance, with national and international clients.

### FORMULATION

The R&D formulation development university laboratory partner of Kalixhem offers research and development interventions, through which one can have available the entire know how necessary to the fulfilment and the commercialization of the end product

## ASSETS

### IDEAS, KNOWLEDGE

Kalichem is able to interpret and satisfy the increasing market demand for ever more sophisticated, innovative and highly technological ingredients, thanks to its continuous commitment in very selective research projects.



R&D LABORATORIES  
UNIVERSITY RESEARCH

### SUSTAINABILITY

Kalichem has always been involved in the research of natural ingredients delicate to the skin, with a low environmental impact. Particular attention is being paid to the respect of the ecosystem and of the natural resources, to the scrupulous research of «green chemistry».





**Head Office and Production:**

Via L. Alessandrini, 8 - 25086 Brescia - ITALY  
Tel: +39.030.26.93.532 - Fax: +39.030.21.93.581  
kalichem@kalichem.it  
www.kalichem.it