

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



*K* OLIVOIL *A*  
SPECIALTIES

# 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

**BIO***mimetic*  
**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

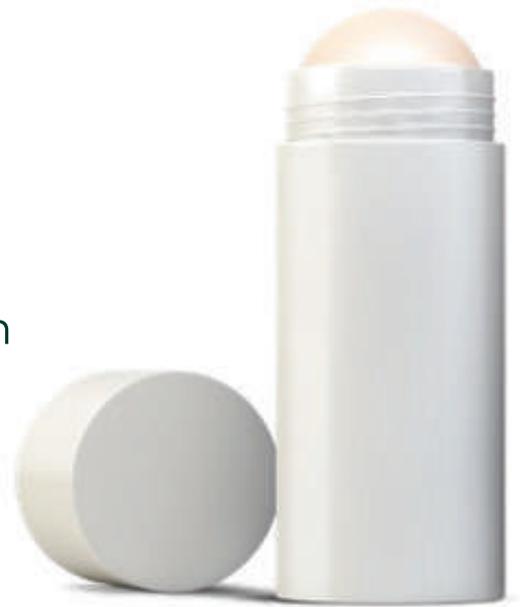
# ROLL-ON HYPER FLUID EMULSION

O/W Deo Cream

## DESCRIPTION

The innovative active ingredient Deo Hap Dry featured in this deodorant emulsion, allows a long lasting control of sweating and odors formation, respecting even the most sensitive skin.

Thanks to the proven efficacy of Deo Hap, this deodorant is fully active for 48 hours against odors and sweat, even with a single application. Compared to other classic sweat control products, **Deo Hap Dry** not only respects the skin, but also improves its texture and elasticity.



**DEO HAP**  
**DRY**



# ROLL-ON HYPER FLUID EMULSION

O/W Deo Cream



#	INCI	[ % ]
1	Demineralized Water	79.1
2	Panthenol	0.5
3	Dissolvine 47S (Aqua, Tetrasodium Glutamate Diacetate)	0.2
4	Actigum VSX 20 (Sclerotium Gum, Xanthan Gum)	0.5
5	<b>OLIVOIL GLUTAMATE EMULSIFIER (Sodium Olivoyl Glutamate, Cetearyl Alcohol, Glyceryl Stearate)</b>	<b>2.0</b>
6	Cetiol C5C (Coco-Caprylate/Caprates)	2.0
7	Cetiol CC (Dicaprylyl Carbonate)	4.5
8	Tocopheryl Acetate	0.2
9	<b>DEOHAP DRY</b>	<b>20.0</b>
10	pH Regulator, Stabilizers, Preservatives Parfum	As needed

# STICK DEODORANT

Deo Stick

## DESCRIPTION

The innovative active ingredient Deo Hap Dry Powder included in this deodorant, allows a long lasting control of sweating and odors formation, respecting skin microbiota.

Thanks to the proven efficacy of Deo Hap, this deodorant is fully active for 48 hours against odors and sweat, even with a single application.

Compared to other classic sweat control products, **Deo Hap Dry** not only respects the skin, but also improves its texture and elasticity.



DEO HAP  
DRY

# STICK DEODORANT

Deo Stick



#	INCI	[ % ]
1	Butyrospermum Parkii (Shea) Butter	23.8
2	Candelila Wax	20.0
3	Lauryl Lactyl Lactate	18.0
4	Maranta Arundinacea Root Powder	16.0
5	<b>DEOHAP DRY POWDER</b>	<b>8.0</b>
6	Lavandula angustifolia Oil	0.8
7	Copaifera officinalis Oil	0.8
8	Xylityl Sesquicaprylate	1.0
9	Tocopherol	0.4
10	Aqua	1.0
11	Aqua & Pentasodium Pentetate & Silver	0.2
12	Saccharomyces Ferment (Deoplex)	8.0
13	Aloe barbadensis Powder	2.0

# DEO-PASTE

Waterless oily paste

## DESCRIPTION

The innovative active ingredient Deo Hap Dry featured in this anhydrous deodorant paste formulation synergizes with other components to achieve a long lasting control of sweating and odors formation with microbiota friendly action. The formula also boasts anti-microbial, oil adsorption and advanced deodorizing features.

Through simple viscosity adjustments, this formula can turn to a stick form.



# DEO-PASTE

Waterless oily paste



#	INCI	[ % ]
1	Isoamyl cocoate (dermofeel sensolv mb)	19.0
2	Myristyl Myristate (tegosoft mm mb)	7.0
3	Cetyl ricinoleate (tegosoft cr mb)	7.0
4	Zinc ricinoleate (tegodeo py 88 g)	2.0
5	Polyglyceryl-3 caprylate (dermosoft g 3 cy mb)	2.0
6	Sodium caproyl/lauroyl lactylate, triethyl citrate, salvia officinalis (sage) oil (dermosoft decalact deo mb)	2.0
7	Glyceryl caprylate (dermosoft gmcy mb)	0.5
8	Cera alba (cerabel bio-d)	5.0
9	Mica (mica m)	6.0
10	Kaolin	18.0
11	Starch	20.0
12	Cellulose (tegofeel c10)	1.0
13	Polyglyceryl-4 Diisostearate/Polyhydroxystearate/Sebacate; Caprylic/Capric Triglyceride; Polyglyceryl-3 Oleate; Diisostearyl Polyglyceryl-3 Dimer Dilinoleate (isolan 17 mb)	2.5
14	Parfum	1.0
15	<b>DEOHAP DRY POWDER</b>	<b>5.0</b>
16	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil (dermofeel toco 70 ngmo)	1.0
17	Silica, Titanium Dioxide, Synthetic Fluorophlogopite, Iron Oxide, Ferric Ferrocyanide, Tin Oxide (silkmira pastel oyg 569)	1.0

# DEO SPRAY

## WATER BASED SPRAY

### DESCRIPTION

Hyperfluid deodorant formulation, with quick absorption, and deodorizing minerals suspended.

Ideal for sprayable applications.

### METHOD

Add ingredients from 1 to 11 and heat up (phase A).

Add ingredients from 12 to 15 and heat up (phase B).

Add phase A to phase B, stir and homogenize until uniform.

Cool down stirring and add 16 and 17 below 40°C.

Cool down stirring to 30°C and adjust pH (5.0-5.5).

Appearance - Clear water thin Liquid

pH-5-5,5. Viscosity - Water Thin



# DEO SPRAY

## WATER BASED SPRAY



#	INCI	[ % ]
1	Polyglyceryl-6 Stearate, Polyglyceryl-6 Behenate	3.0
2	CetearylAlcohol	0.2
3	Oleyl Erucate	3.0
4	Decyl Cocoate	4.0
5	Stearyl Heptanoate	1.0
6	Cetyl Ricinoleate	0.5
7	Glyceryl Caprylate	0.5
8	Zinc Ricinoleate	2.0
9	Polyglyceryl-3 Caprylate	2.0
10	Sodium Caproyl, Lauroyl Lactylate (and) Triethyl Citrate (and) Salvia Officinalis (Sage) Oil	2.0
11	<b>DEOHAP DRY POWDER</b>	<b>3.0</b>
12	Aqua	71.06
13	Glycerin	3.0
14	Xanthan Gum	0.2
15	Gellan Gum	0.04
16	Sodium Levulinate, Sodium Anisate, Glycerin, Aqua	3.5
17	Perfume	1.0

# DEO CREAM

## O/W EMULSION

### DESCRIPTION

Deodorant emulsion formulation, with quick absorption, and deodorizing minerals suspended.

Ideal for emulsion to pack in tubes.

### METHOD

Add 1, 2, 3 and heat to 78°C.

Add 4, 5, 6, little by little to the heated solution and mix for 5 minutes, to obtain phase A.

Add 7-11 at a temperature of 76°C mixing until clear (to obtain phase B).

Add phase B to phase A mixing and homogenizing for 5 minutes then cool down to room temperature.

Add 12 to the emulsion, mix and homogenize for 5 minutes.

Add 13 to the emulsion, mix and homogenize for 5 minutes.

Add 14, 15 and mix.

Add 16 mix and homegenize until homogeneous.

Add 17 and set the pH to 6.5-7.0.

Viscosity 6000-7500 cP (Brookfield S06, 30 rpm).



# DEO CREAM

## O/W EMULSION



#	INCI	[ % ]
1	Demineralized Water	67,75
2	Panthenol	0,50
3	Aqua, Tetrasodium Glutamate Diacetate	0,20
4	Xanthan Gum	0,30
5	Sclerotium Gum	0,30
6	Chondrus Crispus Powder	0,25
7	<b>OLIVOIL GLUTAMATE EMULSIFIER</b>	<b>2,50</b>
8	Coco-caprylate/Caprates	2,50
9	Dicaprylyl Carbonate	1,00
10	Tocopheryl Acetate	0,20
11	Zinc Ricinoleate	1,00
12	<b>DEOHAP DRY POWDER</b>	<b>15,00</b>
13	Triethyl Citrate	5,00
14	Propanediol (and) caprylyl Glycol (and) Phenylpropanol	2,00
15	Hydroxyacetophenone	0,50
16	Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer (and) Polyisobutene (and) Peg-7 Trimethylolpropane Coconut Ether	1,00
17	Sodium Hydroxide	As needed

# DEO AEROSOL

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## FORMULATION



#	INCI	[ % ]
1	Butane	50:75
2	Tridecane	10:25
3	Propane	5:10
4	Aluminum Chlorohydrate	5:10
5	<b>DEOHAP DRY POWDER</b>	<b>1÷5</b>
6	C9-12 Alkane	1:5
7	Aqua	1:2
8	Isobutane	1:5
9	Parfum	0,1:1
10	Disteardimonium Hectorite	0,1:1
11	2-methyl 5-cyclohexylpentanol	0,1:1
12	Gossypium Herbaceum Powder	0,1:1
13	Triethyl Citrate	0,1:1
14	Tocopheryl Acetate	<0,1
15	Adansonia Digitata Seed Oil	<0,1
16	Citrus Aurantium Bergamia Peel Water	<0,1
17	Acetyl Cedrene	<0,1
18	Tetramethyl Acetyloctahydronaphthalenes	<0,1
19	Glycerin	<0,1
20	Pogostemon Cablin Oil	<0,1
21	Tocopherol	<0,1
22	Menthol	<0,1
23	Chamomilla Recutita Flower Extract	<0,1
24	Tilia Cordata Flower Extract	<0,1
25	Potassium Sorbate	<0,1
26	Sodium Benzoate	<0,1
27	Citric Acid	<0,1
28	Benzyl Alcohol	<0,1



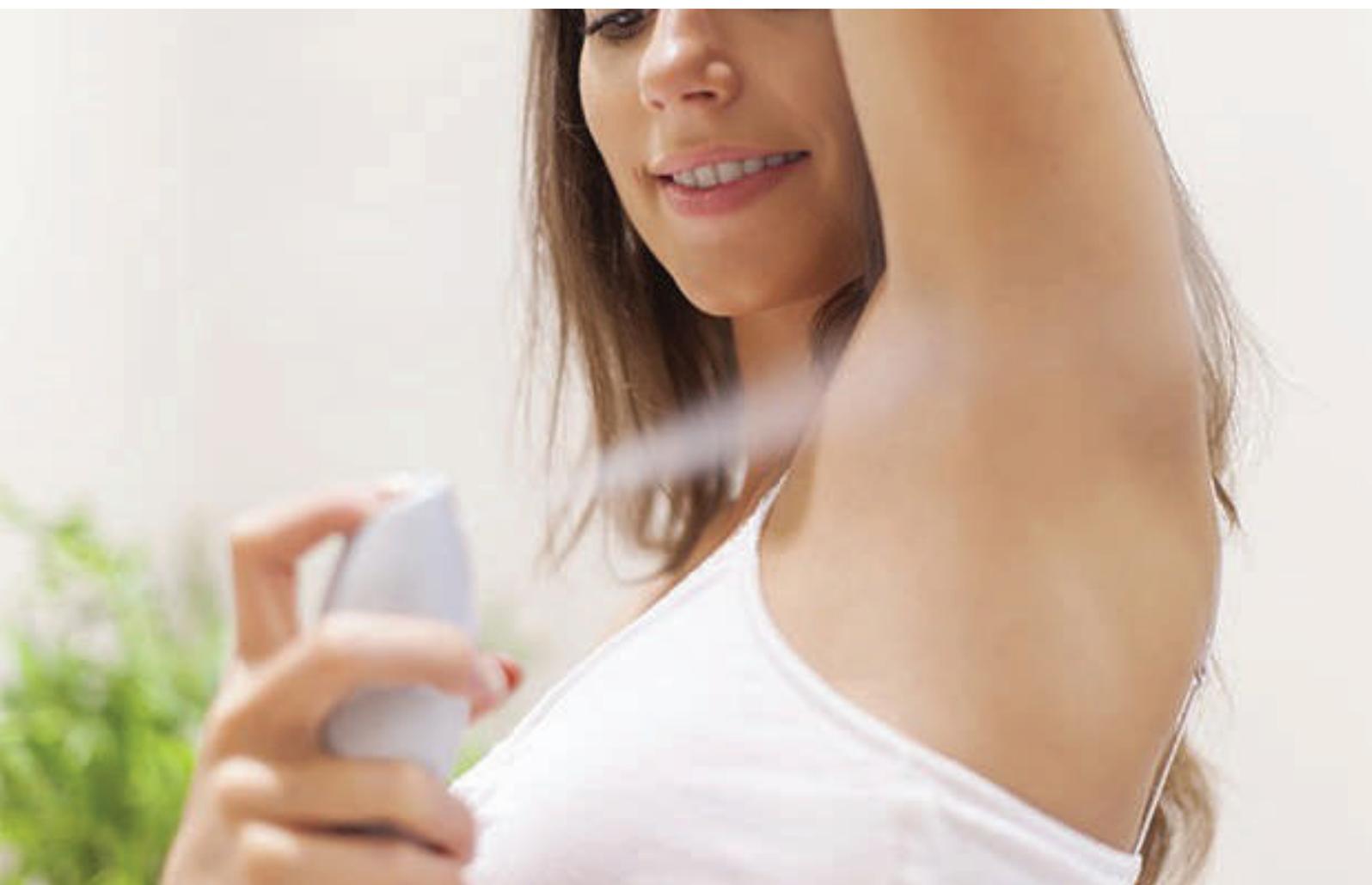
# DEO AEROSOL

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## FORMULATION



FOR ADDITIONAL INFORMATION ABOUT THE FORMULATIONS PLEASE CONTACT THIS EMAIL ADDRESS:  
[kalichem@kalichem.it](mailto:kalichem@kalichem.it)



# DEOHAP DRY

## >> DEOHAP: MINERAL SWEAT ADSORBER

### PATENTED SPECIALTY FOR SWEAT CONTROL

The traditional active ingredients based on aluminum salts with tangible objectified action used in deodorant/anti-perspirant market are under discussion, given their known induced obstruction of sweat glands and variable tendency to trigger skin irritation given by the formation of chloridric acid.

**DEOHAP DRY technology enables to promote the sweat reduction through a unique adsorbing action on the sweat fluids and malodorous gas**, given by the innovative activity of its patented biomimetic multi-functionalized hydroxyapatite minerals.

**DEOHAP DRY shows immediate and long lasting (48h) efficacy comparable to anti-perspirants**, working through a safe, gentle and effective sweat drying action in the armpit, hands and feet areas **with no interference on the physiological perspiration**

## >> POSITIONING

### TECHNOLOGY HIGHLIGHTS

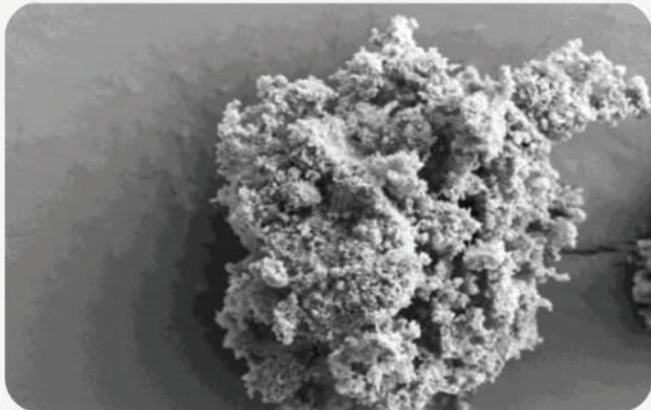
- **Internationally patented multi-functionalized Hydroxyapatite** for sweat control
- **Eco-sustainable mineral Hydroxyapatite with biomimetic nature**
- **Sweat drying action**, no interference with the physiological perspiration
- Long lasting efficacy (24/48 hours protection) through a time controlled “smart-adsorb” action on sweat fluids and malodorous gas
- Skin microbiota friendly, balanced bacteriostatic action on pathogens and sebum reduction
- **Efficacy comparable to anti-perspirants**
- **Aluminum chloride/chlorohydrate free**

PATENTED

BIOmimetic  
SOLUTIONS

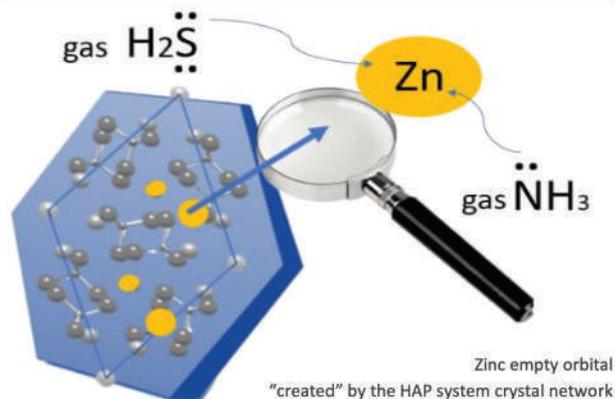
CHINA  
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### SWEAT ADSORPTION



DeoHAP minerals show a porous and irregular surface able to draw with high affinity water from sweat fluids and promote a sweat drying action

### ODORS NEUTRALIZATION



DeoHAP minerals neutralize malodorous gas based on ammonia and hydrogen sulfide through an optimized Lewis acid-base reaction

### SWEAT REDUCTION: GRAVIMETRIC

% OF WETNESS REDUCTION

IN VIVO TESTED



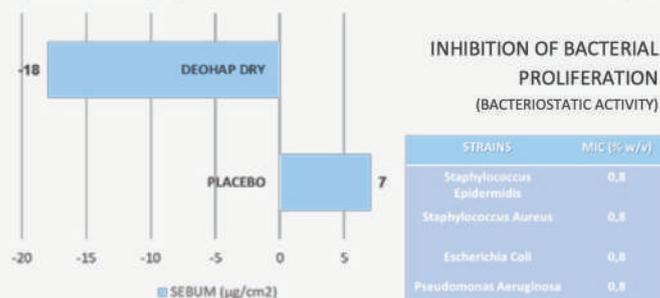
DeoHAP promotes sweat reduction by at least 30% after 24 and 48 hours. Its efficacy is comparable to anti-perspirants according to FDA

### BACTERIOSTATIC AND SEBUM REDUCTION

REDUCTION OF SEBUM

(MAIN SOURCE OF VFA)

IN VIVO TESTED



DeoHAP promotes a bacteriostatic action against pathogens and balances skin microbiota. It boasts additional in vivo sebum reduction action

## >> TECHNICAL OVERVIEW

PH OF USE	% OF USE	APPLICATIONS	SOURCING	FORMULATION TIPS
5.5 ÷ 8.0	5.0 ÷ 20.0	Deodorant in roll on emulsion, stick, spray and aerosol form	Minerals	Add to emulsion and solutions under thorough stirring

[ INCI NAME : AQUA, CALCIUM/MAGNESIUM/ZINC HYDROXYAPATITE, CLAY MINERALS, ZINC PCA, AQUA ]

# OLIVOIL

## GLUTAMATE

### EMULSIFIER

## >> VEGETABLE EMULSIFIER FOR SILICON LIKE EMULSIONS

### PATENTED O/W EMULSIFIER TO BUILD LIQUID CRYSTALS EMULSIONS

**Olivoil Glutamate Emulsifier** is a vegetable derived anionic emulsifier able to build dermo compatible liquid crystals emulsions.

It is composed of active ingredients as **olive oil fatty acids** (containing skin friendly unsaturated fatty acids, among which oleic and linoleic acid) and **glutamic acid**, able to provide a unique *silicon like texture, immediate tensor effect, skin emolliency and barrier function restoring to promote a long lasting hydration and keep the homeostasis of the hydrolipidic film.*

Olivoil emulsifiers are self-emulsifying bases able to build emulsions of different types (emulsion with high and low viscosity, butters, hyper fluid creams, lotions, sprays, foundation and sunscreens loaded with pigments and minerals, emulsions for roll-on, mascara etc.), with a unique composition and a patent relying on the use of olive fatty acids in combination to protein derivatives.

## >> POSITIONING

### FUNCTIONAL AND TECHNOLOGY HIGHLIGHTS

- PEG & Sulfate free
- Vegetable origin, sustainable sourcing
- Skin barrier restoring for a time prolonged skin moisturization
- Immediate tensor effect silicon like texture and emollient after feel
- Lamellar liquid crystal emulsion builder: dermo compatibility, time prolonged actives release
- RSPO certified version available \*
- Proven efficacy in vivo tested
- Ideal for sensitive skin, soothing and baby care applications



RSPO 9-2407-18-100-00

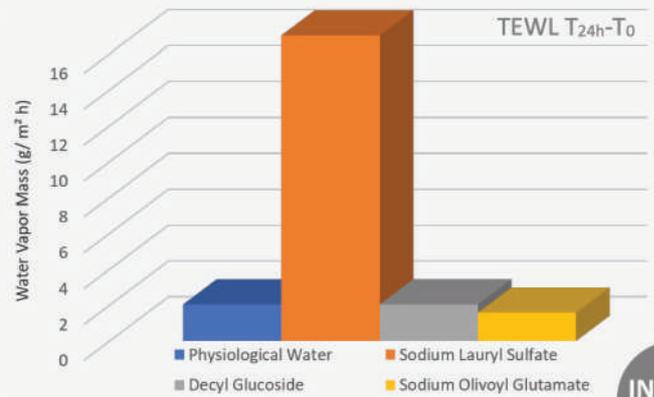


### PATENTED LIPO-POLYPEPTIDE



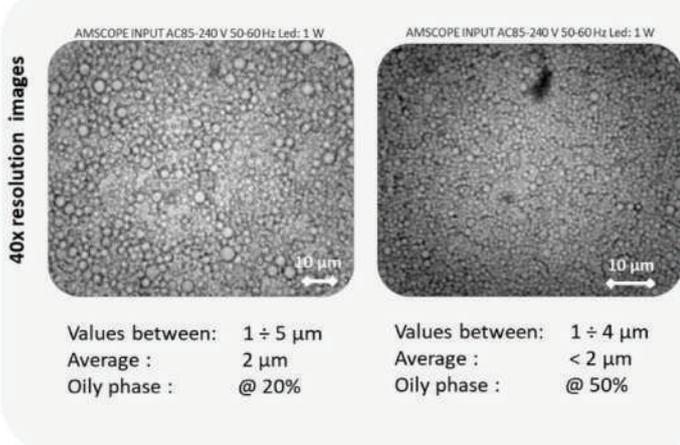
Olivoil Glutamate is a patented anionic lipo-aminoacid, containing emollient olive oil unsaturated fatty acids and glutamic acid.

### SKIN BARRIER RESTORING @1,7% A.M.



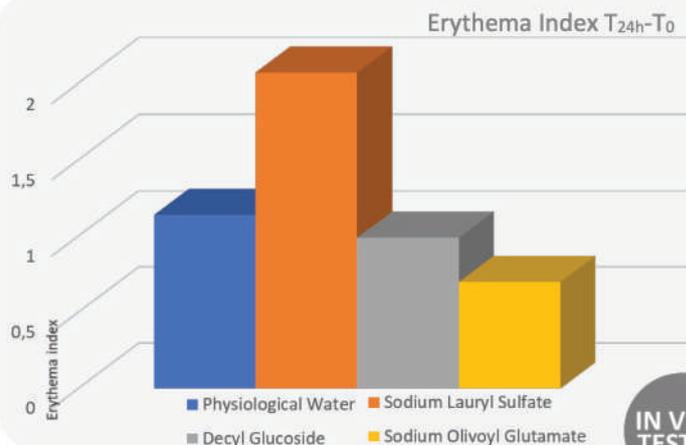
Olivoil Glutamate lipoaminoacid shows TEWL values lower than physiological water and mild benchmark, with unique moisturizing features.

### LIQUID CRYSTAL STRUCTURE @5%



OG emulsions are micron sized systems where the oily phase is finely dispersed, to promote dermo compatibility and silicon texture.

### SENSITIVE SKIN TARGETING @1,7% A.M.



Olivoil Glutamate shows erythema index value lower than physiological water and mild benchmarks. Ideal for sensitive skin applications.

## >> TECHNICAL OVERVIEW

PH OF USE	% OF USE	APPLICATIONS	SOURCING	FORMULATION TIPS
5.5 ÷ 8.0	1.0 ÷ 10.0 (depending on viscosity and texture desired)	Creams, gels, butters, spray, roll-on deo, foundation, mascara, sunscreens	Vegetable	Indirect or direct emulsification technique

[ INCI NAME : sodium olivoyl glutamate, glyceryl stearate, cetearyl alcohol, aqua ]

## 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

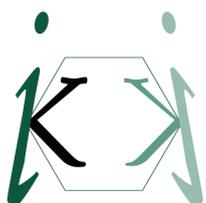
Kalichem is able to interpret and satisfy the increasing market demand for ever more sophisticated, innovative and highly technological ingredients, thanks to its continuous commitment in very selective research projects.



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».



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