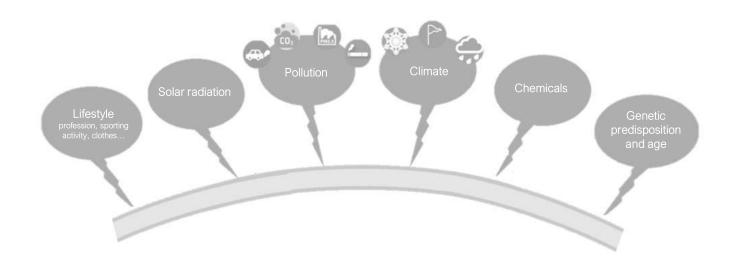
# ESSENTIAL RELŒAD

THE EPIDERMIS, or outer layer of skin, is the most important barrier between the body and the environment. On this protective layer an ecosystem called the microbiome can be found, where communities of microorganisms (bacteria, fungi and viruses) coexist in perfect symbiosis.

Although, for many years we've been trying to eliminate the presence of any microorganisms from the skin, believing them to be harmful, recent scientific studies have shown that this group of microorganisms are of vital importance for our health. They protect us and provide us with essential elements that sustain the skin's natural balance. The beauty of our skin is closely related to the microbiome's balance.

This ecosystem is affected every day by the environment, lifestyle and even the individual's genetics.

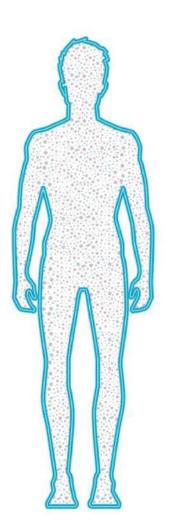


The microbiome is an invisible and very complex community, which forms a balanced ecosystem, essential for the correct functioning of our skin and organism.



Its significance has been growing as its role has gradually been uncovered, and this is why in the USA the NIH initiated multimillion dollar project known Microbiome the Human as **Project** (HMP) the characterization of the human microbiome and the analysis of its role in human health and disease

This is some of the NIH's data, simplified, to understand the complexity and importance of this ecosystem present on our bodies.



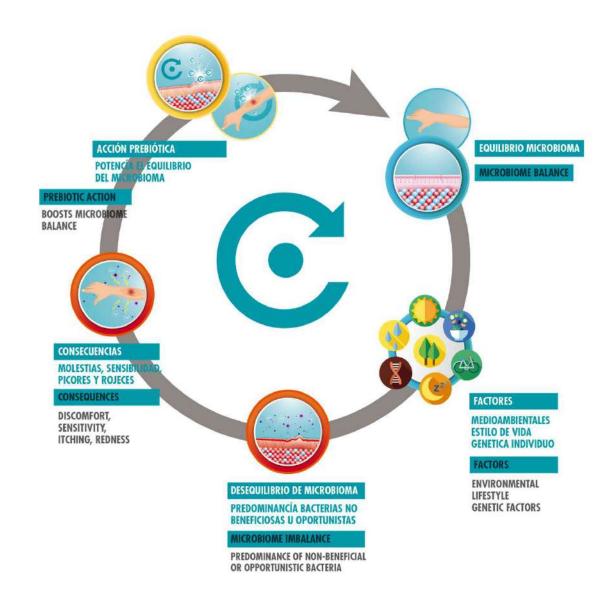
Up to 2 KG of bacteria per person

10 times more bacteria cells than human cells

>10.000 different species of microorganisms identified on healthy skin

All this shows that there are **BILLONS** of bacteria coexisting on our bodies.

When the balance of the microbiome is disrupted, alterations in the skin's natural defenses can occur, provoking premature aging, and resulting in discomfort (redness, inflammation, dryness and itching) which alerts us to the damage. The consequences of this imbalance can become severe and the majority of problems associated with skin can be traced back to alterations in the microbiota.



# ESSENTIAL RELCAD

Lendan has developed Essential Reload, an advanced treatment, containing prebiotic actives that help to recompose the skin's microbiome, as well as providing a recharging boost of essential nutrients to improve balance and restore a healthier appearance.

#### WHAT ARE PREBIOTICS AND HOW DO THEY WORK?

*Prebiotics* are substances capable of "selectively favoring" the growth, balance and activity of the microbiota. They act like *superfoods*, boosting the growth of the beneficial microorganisms found naturally on skin, and therefore reducing the possibility for proliferation of harmful bacteria or pathogens.

The use of prebiotics in cosmetics is very new and shouldn't be confused with the probiotics used in food containing live bacteria that have a beneficial action on the digestive system. Currently, probiotics are found only in foods like yoghurt and are not used in cosmetics, as European law has clear restrictions on presence of live microorganisms in cosmetic products.



## ESSENTIAL RELCAD

The first professional prebiotic range that prepares, repairs and protects, making beauty salon and home skin care a true wellness and balance-restoring ritual.

PREPARES: Facial hygiene is fundamental and the starting point for maintaining the facial skin in a healthy condition and preserving its youthfulness. The ESSENTIAL RELOAD makeup removers and cleansers are a *must* when readying the skin for any posterior treatment. They have a gentle cleansing action, unlike the many aggressive cleansing products currently available, without losing effectiveness and in this way prevent any further damage to the microbiota.

REPAIRS: Restructuring of the tissues is boosted by a combination of ingredients that stimulate epidermal growth and cellular rejuvenation and revitalize the skin's organism. Balance, repair and reactivation for the complete comfort and health of the skin.

PROTECTS: The actives in the range prevent the skin from becoming damaged by the aggressions it encounters on a daily basis, as well as boosting its own defenses.



#### PREBIOTIC MICELLAR WATER



Oily-aqueous micellar system. In one simple step it cleans thoroughly, removing makeup, soothing and conditioning the skin without the need to rinse. Skin is clean, soft and hydrated. Its oily part contains emollient ingredients which prevent dehydration and irritation, while the aqueous part contains micelles which efficiently and gently draw out any impurities or makeup of any kind.

Suitable for face, neck, eyes and lips.

Suitable for all skin types, IDEAL for sensitive and oily/seborrheic skins.

Doesn't leave behind oily residues.

#### Main actives

Bio-algae, Aloe Vera 10X, HydraSkin24, Chia Oil, Squalane (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Bisabolol: active obtained from chamomile. Known for its soothing and antiinflammatory effects.

#### How to use:

Daily use. Shake well to mix the two phases. Use cotton wool or similar to apply to face, neck and décolletage. In the eye area start from the nose and sweep gently to the outer eye. Do not rinse.

#### PREBIOTIC MICELLAR OIL



Art. 1241002

OIL TO CREAM

A dry-oil cleanser for perfect daily facial cleansing. Gently cleanses impurities and makeup, even waterproof, as well as restoring the skin's natural condition without leaving it feeling oily. Its micellar formula is capable or removing any kind of impurities.

Keeps the skin perfectly hydrated, leaving it silky and supple, without causing a feeling of tightness.

Suitable for face, eyes and lips. Suitable for all skin types, IDEAL for dry skin.

#### Main actives

Bio-algae, Aloe Vera 10X, HydraSkin24, Chia Oil, <u>Squalane</u> (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Bisabolol: active obtained from chamomile. Known for its soothing and antiinflammatory effects.

#### How to use:

Daily use. Apply on dry skin. Smooth a few drops over the eyes, face, neck and décolletage. Use wet hands to produce a lather (Oil-to-cream technology). Use fingertips to massage gently. Remove with lukewarm water. Ideal product for using in the shower.

#### PREBIOTIC CLEANSING MILK



Formats: 200ml and 500ml (with pump) Art. 1241003 and 1241008 Prebiotic cleansing milk with moisturizing and softening properties suitable for all skin types. Extremely gentle cleansing which respects the skin's natural hydration and provides maximum comfort, making it ideal for sensitive and dry skin. Removes makeup and gently treats even the driest of skins.

Suitable for face and neck. Suitable for all skin types, IDEAL for dehydrated and delicate skin.

Doesn't leave oily residues.

#### Main actives

Bio-algae, inulin and yoghurt dust, Aloe Vera 10X, HydraSkin24, Chia Oil (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Sebulipid: a non-oily lipid, similar to the cutaneous hydro-lipid layer. Used in a high proportion in this formula to boost the hydrating effect, replenishing the lipids eliminated by cleansing and stimulating sebum regulation.

#### How to use:

Daily use. Apply the cleansing milk to the face, neck and décolletage. Massage gently then rinse off with plenty of water.

#### PREBIOTIC ENZYMATIC SCRUB



Creamy and light exfoliating scrub. Dual action exfoliation which combines physical exfoliation with biodegradable cellulose particles, and bio-enzymatic exfoliation which imitates natural skin renewal. Eliminates impurities and renews the outer layers of the epidermis. Brightens and softens skin. An essential product for our facial hygiene ritual, the perfect complement to eliminate skin toxins. The result is completely clean skin, ready to absorb any posterior treatments.



The micro granules (physical exfoliation) eliminate the most superficial impurities to illuminate the skin and recover youthfulness.

The enzymatic exfoliation has a non-aggressive renewing action.

This product won't cause photo-sensitivity and can be used all year long. However, it's always recommendable to use sun protection after an exfoliating, cellular renewal process.

Suitable for all skin types, even sensitive skin.

- On oily skin with a tendency to develop acne, deeper cleansing can be achieved. Pore size and the development of blackheads is minimized.
- An excellent treatment for dry skin, it helps reduce accumulated dead skin cells to restore the bright appearance of healthy skin.
- On very sensitive, damaged or delicate skin, massage can be minimized to prevent physical exfoliation, and allow only bio-enzymatic exfoliation to occur achieving skin renewal without further damage.

#### PREBIOTIC ENZYMATIC SCRUB

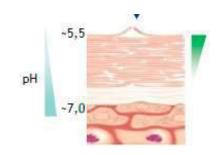


#### Main actives

Bio-algae, inulin and yogurt dust, Aloe Vera 10X, HydraSkin24, Chia Oil (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Biodegradable cellulose particles: physical exfoliation, based on fine cellulose granules, designed to carry out non-aggressive physical exfoliation. They are biodegradable in keeping with our commitment to the environment and prevent the marine contamination associated with the plastic micro-beads often used in cosmetics.

Mucor Miehei protease: Biological exfoliation, based on an enzyme derived from the Mucor Miehei fungi which imitates the skin's natural process of renewal, specifically Cathepsin D endogene, one of the most important enzymes in the process of peeling which decreases with age. Exfoliates gently and stimulates cellular renewal<sup>1</sup>. In comparison with AHA, it produces less sensitivity, irritation and interference with the barrier function. This effect is down to the active's pH dependent functioning, with an optimum working pH of between 3.5 and 5.5. The pH that the product has been formulated with ensures that the enzyme is active on the most skin's most



superficial layers but loses functionality as it is absorbed by the skin, to prevent any damage to the deepest layers of skin, with a naturally more alkaline pH.

#### How to use:

Apply a small amount to clean, makeup-free, skin avoiding the eye area. Then use fingertips or a facial brush to massage gently, paying special attention to the roughest areas. On thick skin dampen the product again and leave to work for 5 minutes. Rinse off with plenty of water. Its two types of exfoliant mean that we have greater control over the % of physical exfoliation and the % bio-enzymatic exfoliation through massage and leave-on time,.

<sup>&</sup>lt;sup>1</sup> in vivo study, carried out on the active in its user dosage.

#### PREBIOTIC BOOSTER



Innovative active concentrate that acts like a superfood for skin, providing nourishment, repair and a soothing effect. Strengthens the skin's NMF (natural moisturizing factor) and its natural defense system to ensure a correct balance, achieved thanks to its high active prebiotic content. Boosts and stimulates the process of skin renewal and protection. The synergetic action of its active ingredients repairs and re-establishes the epidermal barrier providing maximum facial well-being and comfort from the very first application.

Its decongestive and soothing action makes it ideal for providing instant relief whenever the skin is irritated and sensitized.

Suitable for any age and skin type. Fluid, fresh and silky textures.

#### Main actives

(the active concentrations in this product are the greatest in the whole range)

Bio-algae, Aloe Vera 10X, HydraSkin24 (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Avenanthramide: an active component of oats, renowned for its anti-inflammatory and soothing effects, and with proven effectiveness in reducing itching and redness<sup>1</sup>.

in vivo test carried out with panelists and on a user dose.

#### How to use:

Gently massage a few drops onto clean skin.

Due to its concentration of active ingredients a few drops can be added to creams and masks to boost their effects.

# PREBIOTIC TREATMENT MASK



Prebiotic facial treatment mask with a moisturizing and repairing action, soothing effect and refreshing feel. Designed for professional use. Readies the skin for posterior treatments. Offers an added prebiotic hydrating boost to the Essential Reload intensive treatment or any other specific treatment. Its formula makes it the ideal complement as it prepares the skin and facilitates the absorption of the actives contained in any facial treatment applied afterwards.

Easy-to-apply cream-gel texture. Suitable for all skin types.

#### Main actives

Bio-algae, inulin and yogurt dust, Aloe Vera 10X, <u>HydraSkin24</u>, Chía Oil, Squalene (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

<u>Avenanthramide:</u> an active component of oats, renowned for its anti-inflammatory and soothing effects, and with proven effectiveness in reducing itching and redness<sup>1</sup>.

<sup>1</sup> in vivo test carried out with panelists and on a user dose.

<u>Bisabolol</u>: active obtained from chamomile. Known for its soothing and anti-inflammatory effects.

#### How to use:

Apply to face, neck and décolletage, avoiding the eye contour after the cleansing and renovation phase of any treatment. Leave on for 10 minutes then remove any excess product before continuing with the specific treatment. If an intensive Essential Reload treatment is being carried out then leave on for 15 minutes before removing excess product and continuing with the specific treatment.

#### PREBIOTIC DAILY CREAM



An absorbent, non-oily daily-use moisturizer with a combination of prebiotics and 24-hour active moisturizers. Protects the skin from everyday external aggressions and boosts tolerance levels. Combats inflammaging, premature aging linked to skin inflammation through weakening of the immune system, which loses its capacity to control the anti-inflammatory response. This process breaks down the collagen fibers, elastane and extracellular matrix, which becomes apparent through the appearance of wrinkles and aging. With broad spectrum sun and Blue Light (BLPS) protection.

Suitable for all skin types.

#### Main actives

Bio-algae, inulin and yoghurt dust, Aloe Vera 10X, <u>HydraSkin24</u>, Chia Oil, Squalene (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Avenanthramide and Bisabolol (common to the mask as detailed on the previous page)

Sun protection (UVB and UVA) SPF15. Considered to be a medium strength protection in accordance with European recommendations. Its sun protection system has been classed as broad spectrum, which means that in efficiency tests carried out externally, it was able to protect the skin from the main types of sun radiation (UVB and UVA).

Blue light Protection System (Description on the following page)

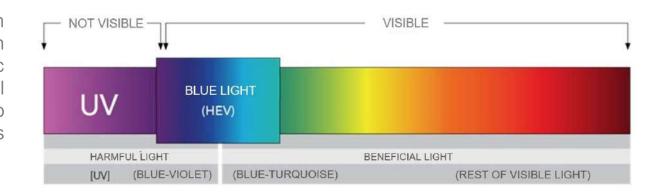
#### How to use:

Gently massage a small amount all over the face until fully absorbed.

#### WHAT IS BLUE LIGHT OR HEV? AND BLPS?

Blue light is the visible part of light, the part that the human eye is capable of perceiving. This light is emitted by natural sources such as the sun but also by artificial sources, like electronic devices. We've been informed about the dangers of UVA and UVB radiation but not about those associated with blue or high-energy visible light (HEV) which according to recent studies can cause significant damage to the epidermis as they are able to penetrate the skin on a much deeper level than UVB or UVA rays. Prolonged exposure can lead to: hyperpigmentation of the skin (dark patches), cutaneous inflammation, weakening of the epidermal barrier and aging effects, among others.

These days we spend the best part of our time in closed spaces, whether at work or home, with artificial light (led) and in front of electronic devices such as computers, televisions or cell phones, which emit this kind of light so protecting ourselves from its harmful effects has become all the more important.





ESSENTIAL RELOAD daily cream contains in its formula the Blue Light Protection System (BLPS), which acts as a shield to protect the skin from the negative effects of this kind of radiation. This cream also offers a UVA and UVB sun protection factor (SPF) of 15 which, in addition to the product's many other benefits, reaffirms the importance of its daily use even further.

# PREBIOTIC BODY MILK



1 in vivo test carried out with panelsts and on a user dose.

A body cream with a repairing and moisturizing action, soothing effect and non-oily feel. Formula based on Aloe Vera, containing a combination of prebiotics and active 24-hour moisturizers, to restore the skin's well-being and natural balance.

Developed with the aim of combating the discomfort, dryness and dehydration characteristic of skins with a weakened cutaneous barrier, especially during periods when the skin is affected by extreme conditions, stress... Restores and regenerates the skin providing nutrition and firmness.

Suitable for all skin types.

Its light texture is quickly absorbed leaving the skin feeling soft and supple.

#### Main actives

Bio-algae, inulin and yogurt dust, Aloe Vera 10X, HydraSkin24, Chia Oil, Squalene (common to other references in the range, explained in the active ingredient description – the actives with greater presence in the product are underlined)

Avenanthramide: an active component of oats, renowned for its anti-inflammatory and soothing effects, and with proven effectiveness in reducing itching and redness<sup>1</sup>.

Bisabolol: active obtained from chamomile. Known for its soothing and antiinflammatory effects.

#### How to use:

Apply then massage gently until fully absorbed.





#### ESSENTIAL RELOAD'S PREBIOTIC ACTIVES AND THEIR BENEFITS

Prebiotics are substances (generally of plant origin) that promote balance of the microbiome, selectively enhancing the growth of beneficial bacterial to the detriment of opportunistic bacteria or pathogens, therefore repairing the disorder associated with their imbalance.

#### PREBIOTICS PRESENTS IN ESSENTIAL RELOAD

Bio-algae. This core prebiotic component is contained in all the products in the range. It's a prebiotic compound that's obtained from the universal microalgae Chlorella Vulgaris, an algae that was one of the first to appear on Earth 540 million years ago and is the main prebiotic compound in Essential Reload.

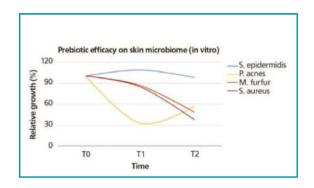
- It's considered a "SUPER FOOD" in skin care thanks to its nutritional properties.
- Revitalizes and rejuvenates the skin thanks to its capacity for stimulating epidermal cell regeneration.
- Reduces growth of pathogenic bacteria in favor of beneficial microorganisms, reducing the risk of proliferation of harmful bacteria (acne for example) and resulting in a balanced microbiome.
- Additional studies show efficiency at regulating and reducing sebum secretions and comedones.



#### PROVEN BENEFITS OF ESSENTIAL RELOAD'S PREBIOTIC COMPOUND

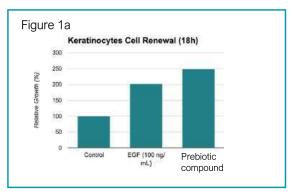
Thanks to its high nutritional value (superfood) in in vitro studies a capacity for stimulating regeneration of epidermal cells (Keratinocytes) has been observed, improving the skin's own growth factor results (EGF) (Figure 1a) in just 18 hours<sup>1</sup>.

It has been observed that there are direct and indirect pathways that explain its prebiotic effect, since it directly increases the antimicrobial response of the epidermal cells, to restore the balance of the microbiome. (Figure 2a).



In addition, in other studies, the selective growth of microorganisms in the presence of the active has been observed, favoring those that are more beneficial and reducing the growth of some recognized as pathogens or opportunists.

(Figure 2b).



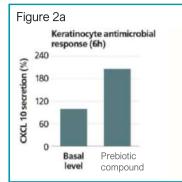
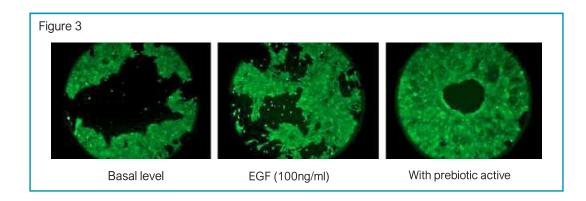




Figure 1a: in vitro test of epidermal growth ("wound healing study") carried out on primary Keratinocytes. Also observed in other in vitro studies is that this result is due to greater secretions of TGF-alfa and DKK-1 in the presence of the active. Figure 2a: in vitro test on Keratinocytes where greater secretion of CXCL10 is observed, the chemokine responsible for activating the antimicrobial response and restore microbiome balance. Figure 2b: in vitro test with selective growth of the S. epidermis against P.acnes, M.furfur and S.Aureus.

Additional studies have been carried out which demonstrate the capacity of the active to sooth the skin, preventing the inflammation caused by an imbalance in the microbiome. (Figure 3)



Clinical studies show its capacity to balance oily skin reducing the production of sebum, comedones and redness. (Figure 4a and 4b).

The results are significant and show the capacity of the active to restore the skin's natural balance.

Further tests are currently being carried out on the active to uncover previously unknown effects and benefits.

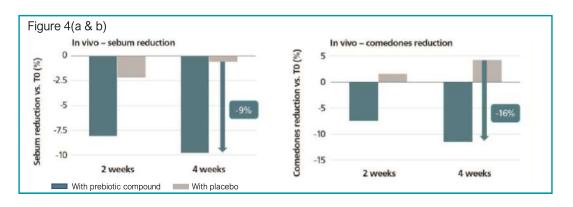


Figure 3: in vitro test to demonstrate the reduction of inflammatory response measured by the secretion of IL-6 which becomes reduced in the presence of the active, knowing that IL-6 is a pro-inflammatory cytokine activated mainly via receptor TLR2 in response to an imbalance in the microbiome. Pam 3CSK4 is the lipopeptide used to activate TLR2. Figure 4: clinical study carried out on volunteers of 18 to 25 years of age with acne were required to apply a placebo product, (without their prior knowledge), on one side of their face and the product containing the prebiotic compound on the other, twice a day, for 4 weeks.

Inulin and yogurt dust. This prebiotic complex combines the benefits of yoghurt with the prebiotic activity of inulin, a fructose polysaccharide of plant origin.

Many of the prebiotics currently known to us have characteristic short-chain carbohydrates found naturally in fruit and vegetables. Within this category, inulin is considered one of the most effective<sup>1</sup>.

This complex is capable of reducing the growth of pathogenic bacteria in favor of those found naturally on the epidermis. In some way it serves as food for the beneficial bacteria, while the harmful bacteria are unable to digest it, resulting in the stimulated growth of beneficial bacteria in detriment of pathogens, therefore restoring the balance of the microbiome.

This prebiotic is present only in the following Essential Reload products: Cleansing Milk, Enzymatic Scrub, Mask, Daily Cream and Body Milk.



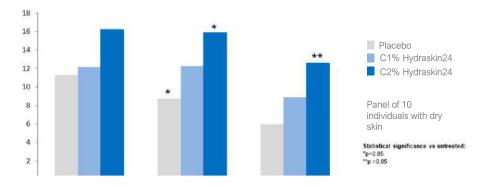
<sup>&</sup>lt;sup>1</sup> Robertfroid MB and Delzenne NM: Dietary fructans. Annual Review of Nutrition Vol. 18: 117-143.

### MAIN (NON-PREBIOTIC) ACTIVES IN ESSENTIAL RELOAD

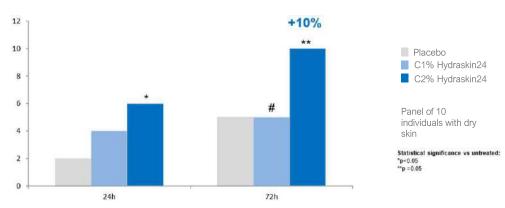
HydraSkin24 A super-hydrating complex with a double, short and long-term action, that combines different moisturizing actives to prevent skin dryness and produce a 72-hour comfort sensation.

- Formulated with skin-compatible actives: hydrating sugars of plant origin (Trehalose, Fructose and Maltose), Hyaluronic Acid (moisturizer found naturally on the skin), Sodium Lactate, principal element of the skin's NMF (Natural Moisturization Factor), Urea, Glycerin and Allantoin (healing and skin protecting agent) among others.
- Reestablishes hydration of the skin's layers, preventing the loss of water and increasing retention capacity to improve skin flexibility.
- Prevents the signs of aging related with dehydration.

Comparison of skin hydration levels following one sole application of the Hydraskin complex after 1 hour, 2 and 4.



Comparison of skin hydration levels following one sole application of the Hydraskin complex after 24 and 72 hours.



Chia oil or Salvia Hispanica. Rich in antioxidants and a plant source of fatty acids, including omega 3 and polyunsaturated fatty acids, palmitic acid and vitamin E. It's also rich in phenolic acids and isoflavones, two powerful sources of antioxidants<sup>1</sup>. Its composition lends it an antioxidant power that, together with its richness in essential fatty acids, has converted Chia or Salvia Hispanica in an essential part of the healthy Mediterranean diet, and its oil is increasingly used in cosmetic products to offer antioxidant, protective and anti-aging benefits, among many others.

<sup>1</sup> Journal of Food Science and Technology, August 2016, pages 3,206-3,214 / Journal of Chromatography A., June 2014,



pages 43-48 / Agricultural Sciences, February 2014, pages 220-226 / Annals of Dermatology, May 2010, pages 143-148



Aloe Vera. Widely used in cosmetics for its soothing properties, antioxidant qualities and its hydrating function, thanks to its polysaccharide and sterol content<sup>2</sup>.

The extract of Aloe Vera we use, is a (partially) dehydrated concentrate which multiplies its active substance content by up to 10 times. This is why in products like the Booster (product with greatest concentration), Aloe Vera can be seen in the first position on the ingredients list, even before water.

<sup>&</sup>lt;sup>2</sup> Giornale Italiano Di Dermatologia, February 2009, pages 85-91 / Indian Journal of Dermatology, 2008, pages 163-166 / Skin Research and Technology, November 2006, pages 241-246 / Journal of Ethnopharmacology, December 1999, pages 3-3

Squalane. Squalane (not squalene) is found naturally in the body: mainly on the skin where it forms part of the hydrolipid barrier. The skin's sebum is made up of a high percentage of squalene, although it is also found in cell membranes. With the use of the most common cleansers and makeup removers on the market, part of the squalene is lost weakening this natural protective barrier<sup>1</sup>.

The squalene present in Essential Reload has been treated to make it more stable and to prevent oxidization and is obtained from plant sources such as olives. The inclusion of this component in the range covers the "natural" loss of this compound from the skin which:

- Contributes to skin softening
- Replaces part of the skin's lost natural sebum to prevent damage.
- Acts as a natural skin protector, strengthening the skin's own natural defense.

<sup>&</sup>lt;sup>1</sup> The Journal of Clinical and Aesthetic Dermatology, June 2014, pages 25-32 / Advances in Food and Nutrition Research, Volume 65, 2012, pages 223-233



# SUMMARY OF THE BENEFITS OF ESSENTIAL RELOAD

	PREBIOTIC MICELLAR WATER	PREBIOTIC MICELLAR OIL	PREBIOTIC CLEANSING MILK	PREBIOTIC ENZYMATIC SCRUB	BOOSTER	PREBIOTIC TREATMENT MASK	PREBIOTIC DAILY CREAM	PREBIOTIC BODY MILK
PREBIOTIC ACTIVES		•	C	C	•••	ccc	CCC	CCC
HYDRASKIN 24 MOISTURIZING COMPLEX	•		•	•	•••	••	••	• •
ALOE VERA 10X	•	•	•		000	• •	• •	• •
SALVIA HISPANICA SEED OIL	•	••	•			• •	•	
SQUALANE	•	• •				• •	• •	
BISABOLOL	• •	• •				• •	• •	• •
SEBULIPID			•••					
BIO-ENZYMATIC EXFOLIANT				• •				
BIODEGRADABLE CELLULOSE EXFOLIANT								
AVENANTHRAMIDE					• •	• •	• •	
SHEA BUTTER								• •
SPF 15 - MEDIUM SUN PROTECTION							• •	
BLUE LIGHT PROTECTION SYSTEM							• •	
Suitable for	All skin types, Ideal for sensitive and oily/seborrheic skin	All skin types / Ideal dry	All skin types / Ideal dehydratated and delicate	All skin types, even sensitive	All skin types	All skin types	All skin types	All skin types
Goal	Cleanse	Cleanse	Cleanse	Renew	Treat	Treat	Treat	Treat