



# INFINITY INGREDIENTS

Inspiring Cosmetics

**Microbiome & Prebiotic**

## Microbiome & Prebiotic

Consumers are becoming increasingly aware of skin health and that not all microbials are bad for your skin. Quite the contrary, in fact skin microbiota is key for healthy skin, just like healthy bacterial is good for the gut. Skin microbiota is made up of billions of microorganisms (bacteria, fungi and yeasts) that live on the skin surface. It is a natural equilibrium between beneficial (commensal) and detrimental (pathogen) strains of bacteria, fungi and yeasts. Balanced skin microbiota provides healthy, radiant and moisturised skin. Unbalanced skin microbiota leads to dysbiosis, dry, irritated, premature ageing and dull skin. With this in mind, we are seeing a number of product launches within this category as this trend gains momentum. Before listing the wonderful actives we offer for this product category, it is first important to explain the difference between probiotic, prebiotics and postbiotics.

Probiotics are living microorganisms known to provide health benefits when applied to the skin, similar to the probiotic yogurts sold to help with gut health.

Prebiotics are nutrients that induce microorganism growth and can be materials such as carbohydrates, fibres etc. We offer a wide range of ingredients with a prebiotic activity (due to their content in sugars and fibres) to boost the microbiota.

Postbiotics are microorganism-derived ingredients, such as enzymes, peptides, exopolysaccharides etc.

All the actives we offer fall under the Prebiotic category, which means they will help induce growth of the 'good bacteria' without having a detrimental effect on preserving your formulation as no 'live bacteria' is being added.

### AECTive®

(INCI: Ectoin)

A powerful pure molecule from a specific selected bacterial strain from cutting edge bio-fermentation technology. This postbiotic osmolyte works by balancing the skin microenvironment and maintaining homeostasis of the microbiota to help prevent acute environmental stress and boost moisturisation, elasticity and smoothness.

A new study on Acneic skin demonstrates a reduction in sebum production, lesions, comedones and a more even complexion compared with a dermatologist recommended market benchmark

Recommended usage level: 0.5 - 2%

### Borealine® Expert

(INCI: Glycerin, Acer Rubrum Extract)

Borēaline® Expert is the unique active extract of red maple bark developed by Bio ForeXtra that allows for the first time the transfer of Northern forest natural properties to skin care.

Borēaline® Expert is the first fully sustainable cosmetic ingredient obtained from recycled red maple tree bark that has been clinically tested to reduce the appearance of wrinkles whilst increasing skin firmness and elasticity to reduce the signs of ageing.

Recommended usage level: 0.1 - 0.25%

## Calybiota<sup>®</sup> Bio

(INCI: Glycerin, Water, Bombax Costatum Flower Extract)

Calybiota<sup>®</sup> Bio is an extract rich in polysaccharides of red Kapokier calyces, a tree sourced in Africa. Calybiota<sup>®</sup> Bio is COSMOS certified by Ecocert and is particularly recommended for personal care and intimate hygiene products.

A clinical study has demonstrated its protective role of the vaginal flora. This study revealed a prebiotic effect in this flora, showing a reduction in inflammation and feelings of discomfort, hydration of the intimate area and an improvement in sexual comfort.

Calybiota<sup>®</sup> Bio is also recommended for acne-prone, atopic/ eczematous or hypersensitive skin, as well as for deodorant formulas, limiting unpleasant odours. This active ingredient protects and maintains the balance of the skin microbiota.

Recommended usage level: 1 - 3%

## Defenscalp<sup>™</sup> PF

(INCI: Glycerin, Water, Epilobium Angustifolium Flower/Leaf/Stem Extract )

Defenscalp<sup>™</sup> PF extracted from rosebay and titrated in oenothien B polyphenols,

Defenscalp<sup>™</sup> is a smart multifunctional plant-derived ingredient designed to naturally and gently regulate the Malassezia proliferation responsible for dandruff, while preserving the scalp microbiota ecosystem.

As a scalpfriendly alternative to irritating classical anti-dandruff ingredients, Defenscalp<sup>™</sup> provides outstanding clinical results on sebo-regulation and anti-dandruff action from the first use, without side-effects.

Defenscalp<sup>™</sup> normalises sebum, reinforces Corneocyte cohesion and modulates the scalp immuno-inflammatory defence system to maintain a healthy flake free non-oily looking scalp and hair. Ideal for greasy hair products as well as anti-dandruff and sensitive scalp care.

Recommended usage level: 0.5 – 1.0%  
Preventative hair care 1.0 – 1.5% Intensive hair care

## Canadian Willowherb<sup>™</sup> 5C PF

(INCI: Water (and) Epilobium Angustifolium Flower/Leaf/Stem Extract)

Canadian Willowherb<sup>™</sup> 5C PF is a Cosmos certified multi-functional active ingredient that contains bioactive molecules such as Oenothien B which has 5- $\alpha$ -reductase inhibitory activity, anti-oxidant and anti-bacterial properties. Its primary function is as a non-steroidal anti-irritant ingredient with free radical scavaging ability.

Canadian Willowherb<sup>™</sup> 5C PF provides a prebiotic activity by modulating skin microbiota growth. Its anti-irritant and redness reduction properties show a strong reduction of skin redness induced by chemicals or UV exposure within 30 minutes.

Ideal for anti-acne, redness, anti-ageing, intimate care, oral care (anti-irritant/ bleeding gums), sun care (reduces UV-induced erythema) and baby care (nappy rash).

Recommended usage level: 1 - 3%

## Dendriclear<sup>™</sup>

(INCI: Glycerin, Water, Polylysine)

Dendriclear<sup>™</sup> is a very innovative active ingredient against the factors responsible for acne. Advances in our understanding of the microbiome simply decreasing the C.acnes quantity is no longer key to clearing acne but rebalancing its distribution between acneic and non-acneic strains is!

Composed of a unique patented lysine dendrimer obtained with a green chemistry manufacturing process, Dendriclear<sup>™</sup> is able to selectively weaken the acneic C. acnes strains to favour growth of non-acneic strains to gently rebalance the acnebiome<sup>™</sup> of acne-prone skin in order to recover a healthier microbiota and reduce the appearance of acne for clear and flawless skin.

With this breakthrough microbiota-friendly mechanism of action, Dendriclear<sup>™</sup> is the next generation of active ingredients in the battle against acne and is a gentle alternative with no undesired side effects, unlike traditional acne-prone skin solutions.

Recommended usage level: Preventive action: 0.1 - 0.2%; Intensive action: 0.2 - 0.4%

## Drieline®

(INCI: Sorbitol (and) Yeast Extract)

Drieline® is a highly purified Yeast Polysaccharide extracted from *Saccharomyces cerevisiae*. This Yeast, reinforces the natural skin defence system as well as cell renewal. The Polysaccharide is obtained by an eco-friendly manufacturing process.

Ideal for anti-ageing and anti-microbial applications as well as the protection of Langerhan cells which are not protected by Melanin.

Recommended usage level: 0.5 - 2%

## EquiBiotics™ LRh

(INCI: Maltodextrin, Lactobacillus Ferment)

Probiotic-derived active ingredient obtained from *L. rhamnosus* LRHO20 tyndallization process that naturally supports the resident microbiota through the promotion of commensal bacteria. It is able to exert a "prebiotic" effect on Synbalance® strains to promote probiotic growth as efficiently as glucose. EquiBiotics™ LRh strengthens the skin barrier and its natural defences to promote the skin ecosystem along with well-being by preventing the colonisation of pathogens. It significantly reduces TEWL, redness and wrinkle depth whilst improving elasticity and firmness. Ideal for biotic serums, active make-up, protective lotions, soothing gels, strengthening creams and skin relief treatments.

Recommended usage level: 0.5 - 2.0%

## Ener-GY plus

(INCI: Citrus Limon Fruit Extract, Glyceryl Glucoside, Glycerin, Potassium Sorbate)

Ener-GY plus is your microbiota-friendly smiling skin energiser. Developed by enzymatic technology this glyceryl glucoside is in an upcycled and sustainable Mediterranean solvent matrix rich in fruit oligo-elements.

Ener-GY plus supports cell vitality by boosting mitochondrial biochemical pathways, increasing ATP production and boosting cell energy for an anti-fatigue effect.

Recommended usage level: 1%

## Exo-H™

(INCI: Butylene Glycol (and) Alteromonas Ferment Filtrate)

Exo-H™ restores Hyaluronic Acid secretion in aged skin cells, stimulates lipid synthesis, supports the DEJ and induces Filaggrin expression in the skin. It's also Cosmos certified!

Exo-H™ helps maintain an optimal skin barrier function and has excellent hydrating properties due to its action on natural moisturising factors and lipid synthesis, making it ideal for dry skin.

When used together, Exo-H™ and Exo-T™ regenerate skin texture and natural hydration for a smooth, radiant and healthy looking skin complexion.

Recommended usage level: 1 - 3%

## Exo-P™

(INCI: Water (and) Butylene Glycol (and) Alteromonas Ferment Filtrate)

The Exossine™ line is composed of 3 exotic Polysaccharides from French Polynesia that provide long-lasting hydration, smooth skin texture and protect against pollution.

Exo-P™ is a natural active that chelates heavy metals, limits free radical activity and protects skin and hair from UV and pollutants (cigarette smoke, exhaust fumes etc.) thus limiting premature ageing, skin damage and sensitivity caused by urban pollution. PM2.5 is known as Particulate Matter with a diameter less than 2.5 µm which are suspended in smog and responsible for irritation, dryness, a dull complexion and premature ageing of the skin. A NEW STUDY on hair has shown Exo-P™ protects fiber integrity to help maintain strong hair whilst providing shine.

Obtained by a proprietary blue technology biotechnology process, Exo-P™ is a sustainable solution that helps preserve natural resources.

Recommended usage level: 1 - 3%

## IBR-Dragon® all natural

(INCI: Hylocereus Undatus Fruit Extract)

IBR-Dragon® is an aqueous dragon fruit extract rich in sugars and fibers. Prebiotic activity supports the growth of beneficial bacteria to allow them to better compete with detrimental ones. Reinforces the skin barrier function (TEWL decrease).

With its prebiotic approach, IBR-Dragon® improves skin barrier function and strengthens skin resilience, leading to a lighter and more luminous skin and revealing a more radiant look!

Recommended usage level: 1 - 5%

## Exo-T™

(INCI: Butylene Glycol (and) Vibrio Alginolyticus Ferment Filtrate)

Exo-T™ has demonstrated a higher activity than Retinoic acid in the stimulation of desquamation markers. Exo-T™ is a potent inducer of differentiation markers; it protects the Collagen network and thus contributes to skin regeneration. Exo-T™ improves skin smoothness leading to an even skin complexion.

Exo-H™ and Exo-T™ regenerate skin texture and natural hydration for a smooth, radiant and healthy looking skin complexion.

Recommended usage level: 1 - 3%

## IBR-UrBioTect™ all natural

(INCI: Glycerin, Water, Inula Helenium Extract )

Inula Helenium takes its name from Helen of Troy, the most beautiful woman who ever walked this earth. Legend has it that this plant grew where Helen's tears fell to the ground when she was abducted by Paris. This was the inspiration behind this active that has been found to protect the skin from urban pollution and blue light damage for healthy, radiant, hydrated and smooth skin.

IBR-UrBioTect® is made from by-products of the herbal medicine industry by valorizing the aerial parts of the elecampane plant, which the farmers usually discard, as only the roots are used for herbal tea production. The growers have a new revenue source from what was previously wasted. After aqueous extraction and purification, all waste is recycled as compost.

Recommended usage level:

Preventive action: <0.5 Intensive care: 0.5-1%

## OiLESS'city™

(INCI: Glycerin, Water, Backhousia Citriodora Leaf Extract)

OiLESS'city™ is a natural Australian active ingredient extracted from the Backhousia citriodora leaf, specially designed to improve control of oily skin caused by the environment. It acts on sebum production and rebalances "Oleostasis" for the Millennials around the world.

Titrate in polyphenols, OiLESS'city™ provides a selfie-confident look by fighting urban life aggressions to rebalance oily skin and reduce shiny appearance.

Recommended usage level: 1 - 2%

## SCB Manuka Honey

(INCI: Glycerin, Water, Honey Extract)

SCB Manuka Honey is produced from sustainable plantations without environmental degradation and then extracted using Aqueous process. Derived from the Leptospermum scoparium honey of New Zealand SCB Manuka Honey contains natural active ingredients which will help nourish and regenerate the skin.

Key properties include: antimicrobial, anti-inflammatory effects, may help regenerate the skin perfect for acne scars and prevent premature aging. Helps nourish skin and hair.

Recommended usage level: 0.5 - 20%

## Riboxyl™

(INCI: Ribose)

Riboxyl™ is a fundamental building block of the ATP molecule which is the most important source of cell energy. To function efficiently, the cell must keep its ATP content at a maximum level.

Riboxyl™ is natural D-Ribose, a Pentose that occurs in all living cells. Generating de novo ATP, it energises and oxygenises skin, reduces wrinkles, increases skin elasticity and enhances complexion.

Ideal for detox, relaxation and antiburn-out applications.

Recommended usage level: 0.5 - 1%

## Sculptessence™

(INCI: Water (and) Glycerin (and) Linum Usitatissimum (Linseed) Seed Extract Bio: Betula Alba Juice (and) Glycerin (and) Linum Usitatissimum (Linseed) Seed Extract)

Sculptessence™ is a natural remodeller derived from Linseed, which compensates for ageing disorders in three ways of actions: skin hydration, stimulation of GAG's synthesis and protection of Collagen.

Its unique Polyholosides hydrate skin and reverse sagging disorders to redesign the outline of the face without the need for surgery.

Recommended usage level: 1.3 - 5%

# Contact Us

Interested?

Then contact the Infinity team  
for more information:

T: 01344 354 900

E: [technical@infinity-ingredients.co.uk](mailto:technical@infinity-ingredients.co.uk)

W: [infinity-ingredients.co.uk](http://infinity-ingredients.co.uk)