



# INFINITY GRADIENTS

Inspiring Cosmetics

## Preservatives & Anti-Bacterial

## Preservatives & Anti-Bacterial

Preservatives are under constant scrutiny by consumers and the cosmetics industry with many usage restrictions and bans now in place. The more traditional preservative systems such as Parabens and MIT/ MIC have been subjected to much negative publicity, making the drive towards alternative preservation more prevalent than ever. This is why Infinity Ingredients are proud to have Evident Ingredients, who have more than 50 years combined experience in this area, as their partner within the UK and Ireland. Evident Ingredients Evicide® range of products can be used to support, boost or replace traditional preservative systems. To prove the efficacy of these products Evident Ingredients offers a microbiological Challenge Testing service to enable cosmetic formulators to make the best choice for successful preservation of their formulations. The Evicide® range offers more than just preservation; some have selected activity against specific micro organisms that can cause skin disorders such as, acne, dandruff, body odour and thrush. Please find detailed below the offerings we at Infinity Ingredients have for this category.

## Organic Acids

### Evicare® wintergreen

(INCI: Salicylic Acid)

Evicare® wintergreen is a natural antimicrobial active and preservative. Salicylic acid is well known in the industry and used as a preservative but even more as an active with specific function as anti-dandruff agent, anti-acne active and for its keratinolytic affect.

Evicare® wintergreen is 100% natural and sourced sustainably from the wintergreen shrub as a by-product from aroma sourcing. It is moderately water soluble and can simply be added to the water phase. It is often used in anti-acne and anti-dandruff products as a main active.

Recommended usage level: 0.5 - 2.5%

### Evicide® levulinate

(INCI: Levulinic Acid, Glycerin, Sodium Levulinate, Aqua)

Evicide® levulinate is a powerful and 100% natural antibacterial agent. Produced by the conversion of natural precursors from Sugar Cane, this raw material is used in natural cosmetics all over the world. The outstanding performance as an antimicrobial in preservative systems has provided a wide acceptance among formulators. Evicide® levulinate is fully water-soluble and works extremely well as a strong bactericidal component for the full protection of surfactant-based products such as, shampoos and shower gels. In emulsions Evicide® levulinate, in some cases requires the use of a boosting agent.

Recommended usage level: 0.5 - 1.0%

### Evicide® cassia

(INCI: Benzoic Acid)

The 100% natural Evicide® cassia is a traditional powerful food preservative: Benzoic Acid. Produced by fermentation from natural precursors from the Cassia tree this raw material can be used for natural cosmetics that strive to have 100% natural content. The performance as a preservative is well-known and used everywhere in the world of personal care. Evicide® cassia is water-soluble. It works extremely efficiently as a strong preservative component for the full protection of surfactant-based products such as, shampoos and shower gels. In emulsions Evicide® cassia, in some cases requires the use of a boosting agent.

Recommended usage level: 0.1 - 0.5%

### Evicide® levulinate B

(INCI: Aqua, Sodium Levulinate, Sodium Benzoate)

Evicide® levulinate B is a cost-effective powerful preservative blend. Using a synergistic blend of well-proven actives this easy to use liquid can be used to protect everything from baby creams to shower gels. The outstanding performance even allows it to preserve wet wipes! Evicide® levulinate B is a fully water-soluble liquid that works extremely efficiently as a full preservative for surfactant-based products like shampoos or shower gels. In emulsions Evicide® levulinate B, in some cases requires the use of a boosting agent.

Recommended usage level: 1.5 - 2.5%

## Evicide® levulinate S

(INCI: Aqua, Sodium Levulinate,  
Potassium Sorbate)

Evicide® levulinate S is a cost-effective and powerful preservative blend. Using a synergistic mixture of well-proven actives this easy to use liquid effectively protects and preserves everything from baby creams to shower gels. The outstanding performance even allows to preserve wet wipes! Evicide® levulinate S is a fully water-soluble liquid and works extremely well as a full preservative for surfactant-based products like shampoos or shower gels. In emulsions Evicide® levulinate S, in some cases requires the use of a boosting agent.

Recommended usage level: 1.5 - 2.0%

## Surfactants

### Evicide® G 5 eco

(INCI: Pentylene Glycol)

Evicide® G 5 eco is a powerful moisturiser and a good aid for achieving a highly homogeneous droplet dispersion in O/W emulsions. However, its most interesting activity is the antimicrobial effect in cosmetic formulations with unlimited pH.

Pentylene Glycol is active against bacteria, yeast and mould. The mode of action is based on its amphiphilic structure, which also enables it to act as a potent penetration enhancer.

Recommended usage level: 5% when used as a moisturiser with full preservative effect; 3% use as moisturiser and preservative booster; 1% used as moisturiser and penetration enhancer

### Evicide® G 8

(INCI: Caprylyl Glycol)

Evicide® G 8 provides the strongest antimicrobial activity in the family of glycols and is widely used in the personal care industry as a natural preservation boosting agent.

Evicide® G 8 is the preferred boosting agent in skin care formulations. It is especially powerful in all emulsion types and works at low levels to improve the performance of any preservative system. In addition, it can also accelerate the emulsification process to save time in production and provide protection to anhydrous products such as, lipsticks.

Recommended usage level: 0.3 - 0.7%

### Evicide® G 6

(INCI: 1,2-Hexanediol)

Evicide® G 6 is a skin-friendly refatting agent and powerful moisturiser offering broad-spectrum antimicrobial protection to leave-on products including masks. It is widely used as a natural preservative boosting agent.

Recommended usage level: 0.5 - 3.0%

### Evicide® GMCY

(INCI: Glyceryl Caprylate)

The 100% natural Evicide® GMCY is an interesting processing aid in emulsification processes. It can accelerate the emulsification process and save time in production. On top of this Evicide® GMCY is the best known and most widely used natural preservation boosting agent that improves the preservative effect of every known system. Evicide® GMCY is the preferred boosting agent in skin care formulations. It is especially powerful in all emulsion types and works at low levels to boost the performance of any preservative system. Perfect for all certified natural products.

Recommended usage level: 0.3 - 0.7%

## Alternative Preservation

### Evicare<sup>®</sup> magnolia

(INCI: Magnolia Officinalis Bark Extract)

Evicare<sup>®</sup> magnolia displays a high antimicrobial activity at low concentrations against a number of different micro-organisms, be it gram-positive or gram-negative bacteria, yeasts or moulds. Thus, the material can be used as a general antimicrobial booster in your formulation at low concentration.

This oil soluble and pH independent active can not only be used as an effective ingredient against skin pathogens such as, the organisms responsible for acne, athlete's foot, dermatosis, oral bacterial etc., it can also be used as an antimicrobial in anhydrous systems such as, lipsticks, lip balms, bath oils etc. Due to the faint and pleasant herbal odour, mild taste and light colour, no unwanted olfactory characteristics will be imparted on the formulation.

In addition to these antimicrobial benefits, Evicare<sup>®</sup> magnolia also possesses an antioxidative property due to the phenolic structure of the two actives magnolol and honokiol.

Recommended usage level: 0.05% as an active in anti-acne or oral application; 0.2% - 0.3% as an anti-microbial booster

### Evicide<sup>®</sup> anisate

(INCI: Sodium Anisate)

Evicide<sup>®</sup> anisate is the nature-identical sodium salt of p-Anisic Acid and is especially designed for cosmetics with reliable performance against yeast and mold. When used in combination with the right anti-bacterial agent such as, Evicide<sup>®</sup> levulinate it is easily possible to entirely replace the use of traditional preservatives.

Evicide<sup>®</sup> anisate has a very good water-solubility and works perfectly as a strong fungicidal component for the full protection of surfactant-based products such as, shampoos and shower gels. In emulsions the use of a boosting agent is recommended.

Recommended usage level: 0.1 - 0.3%

## Evicide® anisate eco

(INCI: Sodium Anisate)

The 100% natural Evicide® anisate eco is the sodium salt of p-Anisic Acid and is especially designed for natural cosmetics with reliable performance against yeast and mold. When used in combination with the right anti-bacterial agent such as, Evicide® levulinate it is easily possible to entirely replace the use of traditional preservatives.

Evicide® anisate eco has a very good water-solubility and works perfectly as a strong fungicidal component for the full protection of surfactant-based products such as, shampoos and shower gels. In emulsions the use of a boosting agent is recommended.

Recommended usage level: 0.1 - 0.3%

## Evicide® anise eco

(INCI: p-Anisic Acid )

Evicide® anise eco is a well-known 100% natural fungicide, especially designed for natural cosmetics. When used in combination with the right anti-bacterial agent such as, Evicide® levulinate it is easily possible to replace existing traditional preservatives. Evicide® anise eco works perfectly and easily as a strong fungicidal component for the full protection of surfactant-based products such as, shampoos and shower gels. In emulsions Evicide® anise eco is used globally as well, in some cases the use of a boosting agent such as, Evicide® G 5 eco or Evicide® GMCY is recommended.

Recommended usage level: 0.1 - 0.3%

## Evicide® anise

(INCI: p-Anisic Acid)

Evicide® anise is a well-known strong fungicide with a reliable performance against yeast and mold. When used in combination with the right anti-bacterial product from the Evicide® range it is easily possible to completely replace traditional preservatives. In surfactant-based products such as, shampoos and shower gels Evicide® anise can be used for protection against yeast and mold. In emulsions the use of a boosting agent is recommended.

Recommended usage level: 0.1 - 0.3%

## Evicide® G 5

(INCI: Pentylene Glycol)

Evicide® G 5 is a powerful moisturiser and a good aid for achieving a highly homogenous droplet dispersion in O/W emulsions. However, its most interesting activity is the antimicrobial effect in cosmetic formulations with unlimited pH.

Pentylene Glycol is active against bacteria, yeast and mold. The mode of action is based on its amphiphilic structure, which also enables it to act as a potent penetration enhancer.

Recommended usage level: 1 - 5%



## Evicide® GML

(INCI: Glyceryl Laurate)

Evicide® GML has a number of exciting functions: It is a skin conditioner, surfactant thickener and also a co-emulsifier used for a quicker emulsifying process and for achieving a highly homogenous droplet dispersion in O/W emulsions. Evicide® GML is mostly known for its antimicrobial effect and preservative boosting capabilities in cosmetic formulations.

The short chain glyceryl monoesters show good efficacy against microorganisms. Within this group, Evicare® GMCY stands out in terms of efficacy but can sometimes compromise the emulsion stability. Evicide® GML is very interesting regarding its promoting effect for emulsion formation while having no issues of lowering viscosity or destabilising emulsions.

Recommended usage level: 0.5 - 2%

## Evicide® levanise eco

(INCI: Sodium Levulinate, Sodium Anisate, Glycerin, Aqua)

Highly effective and 100% natural broad spectrum antimicrobial mixture. Evicide® levanise eco is a fully water-soluble mixture of sodium levulinate, sodium anisate and the solubilizer glycerin. By using this convenient mixture, solubility issues with anisic acid are circumvented, making application very straight forward.

Due to the excellent water solubility, Evicide® levanise eco can simply be added to the formulations water phase. Evicide® levanise eco is completely natural and complies with all common natural cosmetics certifications such as, COSMOS and Natrue. The Natural Origin Index (NOI) according to ISO 16128 is calculated to be 1.0. Raw materials are sourced from sugar cane or corn (levulinic acid), star anise (anisic acid) and rape seed (glycerin).

In O/W emulsions a booster is sometimes required. We recommend adding either 1 - 2% Evicide G 5 eco or 0.5 - 0.7% Evicide GML.

Recommended usage level: 2.5 - 5.0% at a pH 4.5 - 5.5

## Evicide® hyacinth

(INCI: Phenylpropanol)

The nature identical Evicide® hyacinth is both a fragrance component and antimicrobial. The delicate floral scent of hyacinth can mask undesired odours in the formulation without using fragrance. In addition to this it provides a distinct antimicrobial effect against fungi and can especially help to protect products when mold is difficult to control. Ideal for modern and mild skin care formulations, as well as fragrance free ones. It is especially powerful against mold in all emulsion types and works at levels as low as 0.3% to improve the performance of any preservative system.

Recommended usage level: 0.1 - 0.5%

## Evicide® rose

(INCI: Phenethylalcohol)

The nature identical Evicide® rose is a fragrance component and antimicrobial. The delicate floral scent of rose can mask undesired odours in the formulation without using fragrance. In addition, it has a distinct antimicrobial effect against yeast and mold and can especially help to protect products when fungi are difficult to control. Evicide® rose is ideal for modern and mild skin care formulations, also fragrance free. It is especially powerful against fungi in all emulsion types and works at levels as low as 0.3% to improve the performance of any preservative system.

Recommended usage level: 0.1 - 0.5%



## Evicide® rose eco

(INCI: Phenethylalcohol )

The 100% natural Evicide® rose eco is both a fragrance component and antimicrobial. The delicate floral scent of rose can mask undesired odours in the formulation without using fragrance. In addition to this, it has a distinct antimicrobial effect against yeast and mold and can especially help to protect products when fungi are difficult to control. Ideal for modern and mild skin care formulations, also fragrance-free. It is especially powerful against fungi in all emulsion types and works at levels as low as 0.3% to improve the performance of any preservative system. For all certified natural cosmetics.

Recommended usage level: 0.1 - 0.5%

## Blended Preservatives

### Evicide® EC 8

(INCI: Caprylyl Glycol, Ethylhexylglycerin)

Consisting of the well-known multifunctionals Caprylyl Glycol and Ethylhexylglycerin, Evicide® EC 8 is a powerful, broad-spectrum antimicrobial mixture.

It can either be used as a standalone preservation system to replace substances such as parabens, MIT or Phenoxyethanol, or as a booster in combination with other antimicrobials or preservatives.

Recommended usage level: 0.3 – 1.5 %

### Evicide® MP 8

(INCI: Methylpropanediol, Caprylyl Glycol, Phenylpropanol)

Evicide® MP 8 is a mixture of Methylpropanediol, Caprylyl Glycol and Phenylpropanol, and acts as a potent broad-spectrum antimicrobial mixture. This blend is designed to be an easy-to-use, pH-independent all-purpose replacement for traditional preservatives such as parabens, MIT or formaldehyde releasers. Evicide® MP 8 is suited to preserve all kinds of cosmetic formulations, even hard to protect types such as sun screens or clay-containing creams.

Recommended usage level: 2.5 - 4.0%

## Evicide® P 810

(INCI: Phenoxyethanol, Caprylyl Glycol, Decylene Glycol)

Evicide® P 810 is a mixture of Phenoxyethanol, Caprylyl Glycol and Decylene Glycol. The main component, Phenoxyethanol, is one of the most used preservatives worldwide and next to its strong antimicrobial activity, the molecule possesses a delicate and pleasant odour. However, even Phenoxyethanol is usually not capable of preserving a product alone and is therefore combined with one or more boosting agents. In the case of Evicide® P 810 this is achieved through the addition of both Caprylyl Glycol and Decylene Glycol.

These two amphiphilic substances possess the ability to interact with microbial membranes, weakening them and making them more susceptible to penetration. Because of this function, they are the perfect fit for Phenoxyethanol, which needs to enter a microbial cell in order to exercise its antimicrobial effect. Therefore, the mixture Evicide® P 810 is a strong and fast-acting preservation blend, for all kind of emulsions and enables the formulator to avoid parabens or other controversial preservatives.

Recommended usage level: 0.8-1.1%

## Evicide® PBS

(INCI: Phenoxyethanol, Benzyl Alcohol, Potassium Sorbate, Aqua, Tocopherol)

Evicide® PBS is a versatile and powerful preservative mixture. It is composed of three safe and globally approved preservatives. On top of the preservatives there is natural Tocopherol present to protect the blend against discoloration. Phenoxyethanol belongs to the most popular preservatives worldwide, due to its mildness, pH-independence and little impact on formulations. However, in many cases Phenoxyethanol is not powerful enough on its own.

This has led to several blends, among the most popular using Ethylhexylglycerin or Caprylyl Glycol as a boosting agent. In some formulation concepts it is recommended to use organic acids instead of amphiphilic boosters, hence the mixture in Evicide® PBS may achieve better results especially at lower pH.

Recommended usage level: 0.8-1.5%

## Evicide® PBD

(INCI: Phenoxyethanol, Benzoic Acid, Dehydroacetic Acid)

Evicide® PBD is a mixture of Phenoxyethanol, Benzoic Acid and Dehydroacetic Acid. Phenoxyethanol is well known as an efficient preservative. However, often one preservative alone fails to deliver the full spectrum of activity that is needed for a safe preservation. Therefore Evicide® PBD contains the powerful co-preservatives, Benzoic Acid and Dehydroacetic Acid. The blend of aromatic alcohol and organic acids has a strong, broad-spectrum efficacy against bacteria, yeasts and molds. Evicide® PBD is a popular preservative blend for all kind of formulations and enables the formulator to avoid parabens or other controversial preservatives like Isothiazolinones or Formaldehyde-releasers.

Recommended usage level: 0.5-1.2%

## Evicide® PCG

(INCI: Phenoxyethanol, Caprylyl Glycol)

Evicide® PCG is a preservative blend that contains only two components. Phenoxyethanol a well proven broad-spectrum preservative that is globally approved but usually not efficient enough as a preservative. That is why Evicide® PCG also contains Caprylyl Glycol, a very effective preservative booster. The result is a simple but powerful blend that acts as cost-effective and standalone preservative with unlimited pH range. Perfect for skin care formulations that need an efficient cost-control booster that is powerful against all types of micro-organisms in all emulsion types.

Recommended usage level: 0.8 - 1.1%

## Evicide® PEHG

(INCI: Phenoxyethanol, Ethylhexylglycerin)

Evicide® PEHG is composed of the well-known preservative Phenoxyethanol and the booster Ethylhexylglycerin.

The ratio was chosen to achieve a highly potent mixture which is able to effectively combat all common microorganisms and provides microbiological product protection. One major advantage of this blend is its flexibility: You are not limited by pH, as both components are working pH-independently.

In addition, the blend is suited for all formulation types, be it surfactant based rinse-off products, rich emulsions, soft lotions, shampoos, or deodorants.

So if you are looking for a one-fits-all preservation blend that is also cost-effective, Evicide PEHG is your answer.

Recommended usage level: 0.8 – 1.1%

## Evicide® Rose 26

(INCI: Phenethyl Alcohol, Ethylhexylglycerin)

Evicide® rose 26 consists of the two multifunctional ingredients phenethyl alcohol and ethylhexylglycerin. Individually these components already have a strong antimicrobial effect, but when employed together, their efficacy is even more enhanced.

This synergy makes our blend Evicide® rose 26 a potent, broad-spectrum antimicrobial raw material, which is highly suitable for the protection of all kinds of cosmetic concepts.

The major component, phenethyl alcohol, is well known as a fragrance compound. It is also used for this purpose, for example to cover undesired odours with its delicate rose-like aroma. Phenethyl alcohol contributes to an efficient preservation system with its antibacterial effect. The mode of action of this aromatic alcohol is based on its amphiphilic structure and inhibition of enzymatic activity. From the outside they interfere with certain functions of the membrane of microorganisms and in the inside they inhibit vital enzymes.

Recommended usage level: 0.8% when used with further antimicrobial substances; 1.0% - 1.2% for standard use; 1.2% – 1.5% for hard to preserve formulations, for example Emulsions at pH >6.5

## Evicide® Rose 8

(INCI: Phenethyl Alcohol, Caprylyl Glycol)

Evicide® rose 8 consists of the two multifunctional ingredients phenethyl alcohol and caprylyl glycol. Individually these components already have a strong antimicrobial effect, but when employed together, their efficacy is even more enhanced.

This synergy makes our blend Evicide® rose 8 a potent, broad-spectrum antimicrobial raw material, which is highly suitable for the protection of all kinds of cosmetic concepts. The major component, phenethyl alcohol, is well known as a fragrance compound. It is also used for this purpose, for example to cover undesired odours with its delicate rose-like aroma. Phenethyl Alcohol contributes to an efficient preservation system with its antibacterial effect.

The mode of action of this aromatic alcohol is based on its amphiphilic structure and inhibition of enzymatic activity. From the outside they interfere with certain functions of the membrane of microorganisms and in the inside they inhibit vital enzymes.

Recommended usage level: 0.8% when used with further antimicrobial substances; 1.0% - 1.2% for standard use; 1.2% – 1.5% for hard to preserve formulations

## Antimicrobial Actives

### AlphaComplete® Face

(INCI: Bisabolol and Melaleuca alternifolia leaf oil)

AlphaComplete® is a 100% natural and bactericidal alternative for the treatment of acne, itch relief and oil control. Result of a potent bactericidal mixture in natural and bacteriostatic in low concentrations.

Properties include antimicrobial, anti-irritant, anti-inflammatory, regenerative and healing properties, providing significant efficacy in the treatment of acne and excessive oiliness. It also has bacteriostatic and antiseptic action besides antifungal activity.

Recommended usage level: 1 - 5%

### AlphaShield

(INCI: Bisabolol, Melaleuca alternifolia leaf oil)

ALPHASHIELD is a powerful synergy of certified essential oils from a sustainable source to provide a potent germicidal action by quickly eliminating (within one minute) 99.99% of germs (gram positive and negative bacteria, as well as fungi). The Active is hypoallergenic and anti-irritant.

ALPHASHIELD helps in the antiseptic power of formulations and can be combined with the action of surfactants for complete cleaning or as antiseptic solutions (also containing alcohol or benzalkonium chloride) for topical use. Its lipophilic nature and high soothing power inhibit the appearance of itching, in addition to reducing adverse reactions caused by disinfection and excessive sanitisation of the skin.

ALPHASHIELD is a dermo-purifier that restores the health of the skin, providing moisturisation and control of moisture loss. This active is safe, even in products without rinsing, protecting against contamination by microorganisms. ALPHASHIELD is a cosmetic active that represents a new proposal to conventional bactericides, such as triclosan, for a safe, effective and ecological approach.

ALPHASHIELD can still be used as a natural preservative, allowing the finished product to use the "preservative free" claim.

Recommended usage level: 0.5 – 5



## Australian Tea Tree Oil WS

(INCI: Water, PEG 40 Hydrogenated Castor Oil, Polysorbate 20, Melaleuca Alternifolia (Tea Tree) Oil)

Australian Tea Tree Oil WS is an aqueous micro-emulsion of Tea Tree Oil. It has a broad spectrum antimicrobial and anti-inflammatory activities specially developed for products aimed at problem of skin and scalp.

Recommended usage level: Skin Care: 5-10%; After-sun Care: 5-10%; Hair Care and problem scalp: 5-10%; Toiletries: 5-10%; Deodorant: 1-5%; Preservative booster: 3%

## BIOACTIVE TOTAROL™ Powder

(INCI: Totarol Powder)

A world first organic super ingredient sustainably sourced from the fallen New Zealand Totara Tree. Bioactive Totarol™ is a highly potent antioxidant (7 times more potent than vitamin E) and antibacterial (including acne causing bacteria), transforming human health by harnessing 100 million years of nature. In the 1990's international and New Zealand scientists conducted research on the To-tara tree.

They were intrigued by the fact that To-tara wood seemed to survive environmental attacks and degradation. The wood had proved to be virtually unblemished after hundreds of years of growth. After testing it, they discovered that Bioactive Totarol™ located in the heartwood of the tree was the magic ingredient at play.

Bioactive Totarol™ is able to penetrate harmful, pathogenic bacteria and destroy them. It also fights free radicals which are unstable molecules that can damage cells, contributing to many health concerns.

Successfully used in cosmetic formulations for the last 20 years, this highly effective, multi-tasking and versatile ingredient can be used across cosmetics, skin care, oral and pet care products. Offering a microbiome friendly solution for acne, anti-ageing and inflammation.

Recommended usage level: 0.2%

## BIOACTIVE TOTAROL™ T9 Cosmetic

(INCI: Tatarol Powder, Helianthus annuus seed oil, Polysorbate 60, Caprylhydroxamic Acid, Glyceryl Caprylate, Glycerin)

A world first organic super ingredient sustainably sourced from the fallen New Zealand Totara Tree. Bioactive Tatarol™ is a highly potent antioxidant (7 times more potent than vitamin E) and antibacterial (including acne causing bacteria), transforming human health by harnessing 100 million years of nature. In the 1990's international and New Zealand scientists conducted research on the To-tara tree.

They were intrigued by the fact that To-tara wood seemed to survive environmental attacks and degradation. The wood had proved to be virtually unblemished after hundreds of years of growth. After testing it, they discovered that Bioactive Tatarol™ located in the heartwood of the tree was the magic ingredient at play.

Bioactive Tatarol™ is able to penetrate harmful, pathogenic bacteria and destroy them. It also fights free radicals which are unstable molecules that can damage cells, contributing to many health concerns.

Successfully used in cosmetic formulations for the last 20 years, this highly effective, multi-tasking and versatile ingredient can be used across cosmetics, skin care, oral and pet care products. Offering a microbiome friendly solution for acne, anti-ageing and inflammation.

Recommended usage level: 0.8-1%

## Canadian Willowherb™ 5C PF

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

Canadian Willowherb™ 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, antioxidant and anti-bacterial properties. Its primary function is as a non-steroidal anti-irritant ingredient with free radical scavenging ability.

Canadian Willowherb™ 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%

## Citruel Bisabolol

(INCI: Bisabolol)

Citruel Bisabolol (100% (-)- $\alpha$ -bisabolol) is a natural and organic product (free from Farnesol) obtained from the fractional distillation of the essential oil of a native Brazilian, Candeia (*Eremanthus erythropappus*).

The Candeia tree contributes to the restoration of degraded areas and in places of difficult implantation of agricultural crops. Even in low fertility soils, it offers a very rich oil in (-) Alpha bisabolol, isomer responsible for the effectiveness of anti-irritant and anti-inflammatory action. Compatible with all skin types, especially sensitive skin to calm, heal and regenerate whilst offering anti-microbial and anti-bacterial properties.

Citroleo employs sustainable management techniques of Candeia, evaluating its environmental, social and economic aspects, respecting the pertinent legislation and not compacting with practices of illegal extraction of wood and other forestry activities that hurt the concepts of ethics or natural resources.

Recommended usage level: 0.07 - 1.0%

## Copaiba Oil

(INCI: Copaifera species resin oils)

Copaiba oil has been used by natives of the Amazon in folk remedies long before they were known in the 21st century for relieving pain, stress or serving as an antimicrobial solution.

The rising use of cannabinoids is closely linked with therapeutic activities, besides the anti-inflammatory property. The most highlighted cannabinoids are cannabidiol (CBD), tetrahydrocannabinol (THC), and  $\beta$ -caryophyllene (BCP). These compounds are present in different vegetable sources such as the cannabis plant and Copaiba oil.

Copaiba is one of the most interesting natural ingredients to explore the experience delivered by this kind of product.

Recommended usage level: 1 - 10%

## Copaiba Balm

(INCI: Copaifera species resin oils)

The Copaiba resin-oil, also known as Copaiba balm, is a natural substance with resinous aspect, non-volatile, formed by diterpenic acids, and by an essential oil composed by sesquiterpenes.

The Copaiba balm offers emollient, anti-inflammatory and bactericidal properties. In cosmetics its main use is in perfumery as an excellent odour fixative, in addition to cosmetic preparations such as: soaps, frothy, detergents and creams. In addition to more traditional uses, copaiba balm can still act as an anti-irritant active in facial masks.

Recommended usage level: 1 - 10%

## Drieline<sup>®</sup>

(INCI: Sorbitol (and) Yeast Extract)

Drieline<sup>®</sup> 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%

## Evicare<sup>®</sup> deo

(INCI: Polyglyceryl-2 Caprate )

The natural based Evicare<sup>®</sup> deo acts as a skin-friendly refatting agent and due to its polarity, it helps to moisturise the skin and hair. Evicare<sup>®</sup> deo has a specific antimicrobial activity against Corynebacteria and, therefore, exhibits a distinctive deodorising effect and helps to promote the efficacy of deodorants. Evicare<sup>®</sup> deo can be used as a natural antibacterial deo active in roll-on and other deodorant formulations, as well as a texture modifier and 'Soft-Factor' where it converts emulsions into more aesthetically soft-creams whilst improving spreadability on the skin.

Recommended usage level: 0.5 - 2.0%

## Evicare<sup>®</sup> TEC

(INCI: Triethyl Citrate)

Evicare<sup>®</sup> TEC is a natural solvent, water soluble emollient and deodorant active. Evicare<sup>®</sup> TEC does not act as a bactericide reducing bacteria on the skin. Instead it controls enzymatic function in sweat-degrading microbes. With this simple trick, bacteria on our skin cannot degrade components from our metabolism into smelly substances. A smart way to reduce body smell without changing the composition of the microbiome on our skin. Evicare<sup>®</sup> TEC is moderately water soluble and simply added to the water phase. In emulsion-based roll on deodorants it works as well as in any other product type. It is popular as a solvent for many ingredients as well.

Recommended usage level: 1.0 - 5.0%

## Evicare<sup>®</sup> magnolia

(INCI: Magnolia Officinalis Bark Extract)

Evicare<sup>®</sup> magnolia displays a high antimicrobial activity at low concentrations against a number of different micro-organisms, be it gram-positive or gram-negative bacteria, yeasts or moulds. Thus, the material can be used as a general antimicrobial booster in your formulation at low concentration.

This oil soluble and pH independent active can not only be used as an effective ingredient against skin pathogens such as, the organisms responsible for acne, athlete's foot, dermatosis, oral bacterial etc., it can also be used as an antimicrobial in anhydrous systems such as, lipsticks, lip balms, bath oils etc. Due to the faint and pleasant herbal odour, mild taste and light colour, no unwanted olfactory characteristics will be imparted on the formulation.

In addition to these antimicrobial benefits, Evicare<sup>®</sup> magnolia also possesses an antioxidative property due to the phenolic structure of the two actives magnolol and honokiol.

Recommended usage level: 0.05% as an active in anti-acne or oral application; 0.2% - 0.3% as an anti-microbial booster

## Melafresh<sup>™</sup> T96

(INCI: 4-Terpineol )

Melafresh<sup>™</sup> T96 is a pure concentrated form of terpinen-4-ol, the active ingredient naturally present in tea tree (*Melaleuca alternifolia*) oil.

This multifunctional natural active ingredient offers both antimicrobial anti-inflammatory activity making it ideal for irritated skin, acne-prone skin, dandruff, deodorants and itchy scalps.

It can be used as a preservative booster for cosmetics and personal care products.

Recommended usage level: 0.2 - 1%

# 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)