## **Active Ingredients**

# Anti-Aging is a complicated market;

at Ethica we believe in sharing the ingredients work with, so our customers can understand the products they are using.

All the marketing in the world means nothing without the correct formulation. We do not "fairy dust" our products to say something is in there, if it is not providing a result that is backed by clinical studies, we leave it out. We are open with our ingredients, why they are there and what they do.

Anti-Aging and hair regrowth is extremely complicated and technical, there is no single ingredient that is the perfect solution, that is why using a precise combination of the correct ingredients will yield maximum results across multiple pathways for the broadest range of people.



## Lets take a look at many of our advanced ingredients:

#### Adenosine

Performs similar to 5% minoxidil for hair loss, recent scientific studies have also show that Adenosine, which is native to the human body, in comparison to Minoxidil and Finasteride, has no side effects. A 12-month usage of Adenosine leads to an improvement of hair condition in 84% of all cases

Anageline

ANAGELINE® is extracted from sweet white lupine. Rich in glutaminated peptides, oligo-elements and vitamins, it controls the hair cycle by regulating the hormonal balance, reactivating the microcirculation and stimulating cell metabolism

#### **Azelaic Acid**

A non-toxic chemical, opposes hair loss through the inhibition of excess sebum, which is laden with pathogenic DHT. In one clinical trial, a 1% concentration of azelaic acid was demonstrated to inhibit the activity of  $5\alpha$ -reductase DHT between 35 to 46 percent

#### Caffeine

Inhibits 5-alpha reductase, the enzyme responsible for the conversion of testosterone to dihydrotestosterone or DHT, while prohibiting DHT-induced miniaturization of the hair follicle. The beneficial effects of topical application of caffeine provides improvement in barrier function, follicular penetration, stimulation and promotion of hair growth

## Cinnamomum Zeylanicum Bark Extract

Contains chemical compounds like eugenol and cinnamadehyde. These offer antiviral, antifungal, antibacterial and many other benefits, which can help with hair problems by preventing fungal and bacterial infections of the scalp

#### Emu Oil

A powerful anti-inflammatory, emu oil is also very highly absorbent. Emu Oil has also been shown to be a strong 5 alpha reductase inhibitor or DHT, in target tissues when topically applied

## **Extrapone Rooibos**

Extrapone® Rooibos GW (by Symrise) acts as an antioxidant. It is a plant extract derived from Aspalathus Linearis and possesses anti-aging, anti-allergenic, antimicrobial, protective and skin soothing properties. It also offers protection to the hair color

## Follicusan™ DP

Follicusan™ DP (by CLR Chemisches) vitalizes hair follicles and reduces hair loss. It is a milk-based bioactive, containing active signaling molecules, which stimulate the dermal papilla cells. It vitalizes the scalp and hair follicles and is proven to counteract accelerated hair loss. Follicusan™ DP improves both hair density and hair thickness

Ingredients: Panthenyl Ethyl Ether, Inositol, Milk Protein, Lactose, Acetyl Cysteine, Acetyl Methionine, Sodium Citrate

#### **GHK-CU** solution

A naturally occurring copper peptide complex, provides numerous benefits such as anti-inflammatory properties, DNA repair, nerve regeneration, stem cell stimulation, and increased collagen production. Using copper peptides topically on the scalp will help strengthen existing hair, while stimulating growth in areas that are lacking thickness

#### **Hydrolyzed Soy Protein**

Increases the ability of the hair to bind moisture and specifically improves the tensile strength of hair. It mitigates damage due to bleaching, perming, and hot combing

# **Active Ingredients**

Kapilarine<sup>™</sup>

Kapilarine™ (by Greentech USA) is a blend of botanicals that acts to prevent hair loss by inhibiting alpha reductase or DHT activity, boosting microcirculation and cellular metabolism in the scalp, and by reducing inflammation contributing to seborrhea

Ingredients: Kigelia Africana Fruit Extract, Ginkgo Biloba Leaf Extract, Salvia Sclarea (Clary) Extract, Cinnamomum Zeylanicum Bark Extract

Kopexil™

Kopexil™ (from Kumar Organic) is a chemical compound similar to minoxidil. It increases the volume of hair in the growth stage while increasing blood flow to deep within the root structure so that stronger, healthy hair growth can persist with maximum anchoring efficacy. Additionally it reverses and inhibits perifollicular fibrosis, a condition in which collagen around the roots becomes rigid, tightens, and pushes the hair out. KOPEXIL™ also does not allow for miniaturization of hair follicles

L Arginine

Because L-Arginine improves capillary blood circulation through the vasodilation attributed to its product, nitric oxide, it is believed that the improved perfusion of the cells of hair follicles contributes to hair regrowth by stimulating the production of new hair follicles. Therefore, L-arginine inhibits the chain reaction leading to weak hair follicle shafts and stunted follicle development

#### Oleanolic Acid

Inhibits and reduces the 5 alpha reductase type I and II, the enzymes involved in the production of dihydrotestosterone or DHT, up to 68%. This compound, found in olive tree leaves, encourages hair growth by stimulating the peripheral blood flow in the scalp and activating hair cells. It also furnishes alopecia-preventing and dandruff-preventing effects

## **Piroctone Olamine**

An alternative to the better-known ingredient Ketoconazole, both act as a powerful antifungal and inflammation reducer. However, Piroctone Olamine has been studied to be far superior to Ketoconazole to stimulate hair growth. Compared to Ketoconazole, Piroctone Olamine ensures an increase in the number of hairs in the growth phase (anagen phase) by more than 10%. 88% of people experienced a significant increase (more than 10%) of the hair diameter over Ketoconazole (10% larger diameter means that the hair became 20% thicker)

Procapil™

Procapil<sup>TM\*</sup> (by Sederma) Strengthens hair and prevents hair loss naturally. It combines vitaminated matrikine with apigenin and oleanolic acid to form 2 powerful functions that target the main areas of hair loss. The first function facilitates the communication of cells and holds these cells together in order to prevent the effects of DHT. The second function increases blood flow in the scalp, while activating a number of genes responsible for tissue repair mechanisms, which provides protecting and repairing effects. Clinical tests have

proven that Procapil™ can boost new hair growth by up to 121% along with reducing hair loss by 58%

#### Prohairin™ B4

Prohairin™ B4 (by Caregen) acts as a hair growth promotion active. It is a double-layered encapsulated biomimetic peptide, which helps increase cell growth and migration. It promotes hair growth by activating the stem cells of hair follicle

#### Reishi Mushroom

This mushroom is a powerhouse of antioxidants and provides anti-inflammatory properties while improving the circulation of blood. All these actions work in coordination, enabling a stronger set of hair follicles and shaft. Reishi showed the most percentage of  $5\alpha$ -reductase DHT inhibition of any mushroom, reducing between 70 and 80% in clinical studies, beating Minoxidil, or Propecia in efficacy

**Sphinganine** 

A potent inhibitor of 5-α-reductase type I that prevents the conversion of testosterone to dihydrotestosterone – DHT

SalSphere Caffeine

SalSphere<sup>TM</sup> Hair Stimulator (by Salvona) is a technology designed to stimulate new hair growth. It is based on a sub-micron sphere delivery system with a core infused with caffeine, and a shell that is composed of a hydrophilic layer. The spheres enable targeted delivery to the hair follicle, forming a reservoir from which the caffeine is slowly released, providing longer-lasting benefits via targeted delivery to the hair follicles. Caffeine inhibits 5-alpha reductase, the enzyme responsible for the conversion of testosterone to dihydrotestosterone – DHT

#### Saw Palmetto

Contains a unique mix of fatty acids, alcohols, and phytosterols, with a hair-growth method of action similar to systemic finasteride (Propecia), but without loss of libido or the other known side effects of that drug

## **Taurine**

Taurine benefits hair loss in multiple ways, most significantly by inhibiting a process termed perifollicular fibrosis, a rigidification process that occurs in response to inflammation of the skin and hair follicles, a condition in which collagen around the roots becomes rigid, tightens, and pushes the hair out. It is also a very important amino acid and a powerful anti-inflammatory

Trichogen™

Trichogen™ VEG LS 9922, (designed by BASF Care) is a cutting edge blend of botanicals and amino acids. It improves hair strength, decreases hair loss, stimulates growth, improves scalp conditions, and counteracts hair-loss disorders

Main Ingredients: Panax Ginseng Root Extract, Arginine, Acetyl Tyrosine, Arctium Majus Root Extract, Hydrolyzed Soy Protein, Polyquaternium-11, Calcium Pantothenate, Zinc Gluconate, Niacinamide, Ornithine HCI, Citrulline, Glucosamine HCI, Biotin