



COSMECEUTICAL LINE

Ingredients Information Dermafleece Masks

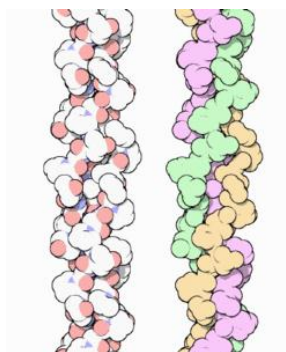


COLLAGEN

Collagen is the main protein of connective tissue in animals and the most abundant protein in mammals, making up about 25% of the whole-body protein content. Collagen is subject to a continuous aging process in the skin, as, with age, collagen fibres are more and more cross linked. Collagen becomes tougher and increasingly loses its capacity to bind large quantities of water which is essential for the turgor of the skin. Consequently the skin looks flabby and older. From its application in medicine it is known that soluble collagen accelerates the healing of skin wounds and the spontaneous reepithelization of the skin. It is, therefore, logical to use soluble collagen in cosmetic preparations.

Description:

Collagen is one of the most important scleroproteins of the connective tissue occurring as fibres. It is the main structure element of the skin and, therefore, largely responsible for its characteristic properties. One collagen unit is composed of three peptide chains with a relative molecular mass of about 95 000 each which are twisted together in form of a helix. These triple-helical peptide chains are synthesized in the fibroblasts, after which they are released to the extracellular space where they aggregate to fibrils, fibres and finally to plane flexible structures.



Collagen Tripel Helix

Cosmetic benefits:

Collagen supports the physical resistance and elasticity of the skin by its skin identical structure. It has excellent water retention and anti-wrinkle capacity.

Cosmetic applications:

Collagen is used in skin care products, ampoules, body lotions, after sun lotions, hydro gels.

ALOE VERA

Aloe vera “**The lily of the desert**” belongs to the botanical family of Liliaceae. Aloe’s relationship to the lily family is evident from the tubular yellow flowers. There are over 300 species around the world. However, only one species is grown today commercially, **Aloe Barbadosis Miller**. **Aloe vera** has a long history of cultivation throughout the drier tropical and subtropical regions of the world, both as an ornamental plant and for herbal medicine. The earliest users of **Aloe vera** were Arabs, Sumerians and Egyptians. About 2200 BC Sumerians had written about this “healing plant” on their stone tablets about its medical value. Egyptians have written about it in 1550 BC with formulas how to mix it and use it externally and internally for human disorders. Egyptian history has records that their queens Neferiti and Cleopatra used to bathe in Aloe juice to keep their skin soft and young.

Description:

Aloe vera is a stemless or very short-stemmed succulent plant growing to 80–100 cm tall, spreading by offsets and root sprouts. The leaves are lanceolate, thick and fleshy, green to grey-green, with a serrated margin. The flowers are produced on a spike up to 90 cm tall, each flower pendulous, with a yellow tubular corolla 2–3 cm long.

Parts used: The cosmetic industry uses the fresh gel from the parenchyma tissue in the centre of the leaf.



Aloe vera

Constituents of Aloe Vera:

Polysaccharides, Enzymes, Proteins (Amino Acids), Anthraquinones (Aloin), Saponins, Sterols, Vitamins, Minerals, Sugars.

Properties of Aloe Vera:

Moisturizing, soothing, wound healing.

Cosmetic applications:

Aloe Vera is used for moisturizers, sensitive skin care, dry skin care, body care, sunscreens and after sun care, after shave lotions, shampoos.

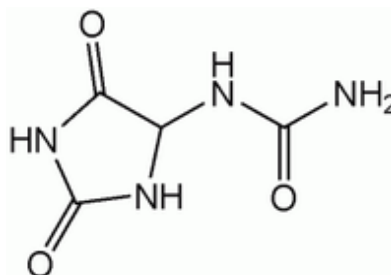
ALLANTOIN

Allantoin is a protein metabolism product found in many animal and plant species and is for example extracted from the root of the comfrey (*Symphytum officinale*) and the horse chestnut (*Aesculus hippocastanum*). Chemically synthesized bulk allantoin is natural-identical, safe, non-toxic, compatible with cosmetic raw materials, and meets CTFA and JSCI requirements.

Description:

Allantoin is a chemical compound with formula $C_4H_6N_4O_3$. It is also called 5-ureidohydantoin or glyoxyldiureide.

Chemical structure:



Cosmetic benefits:

Allantoin is a multifunctional active ingredient. It is used for: a moisturizing and keratolytic effect, increasing the water content of the extracellular matrix and enhancing the desquamation of upper layers of dead skin cells, increasing the smoothness of the skin, promotion of cell proliferation and wound healing; and a soothing, anti-irritant and skin protectant effect by forming complexes with irritant and sensitizing agents.

Cosmetic applications:

Allantoin is frequently present in toothpaste, mouthwash and other oral hygiene products, in shampoos, lipsticks, anti-acne products, sun care products, clarifying lotions, various cosmetic lotions and creams and other cosmetic products.

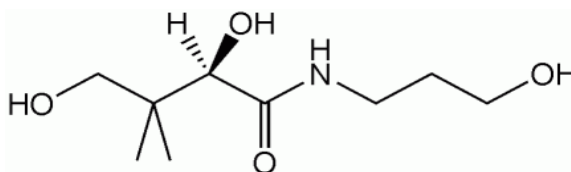
PANTHENOL

Panthenol is the alcohol analog of pantothenic acid (vitamin B5), and is thus the provitamin of B5. In organisms it is quickly oxidized to pantothenate. Panthenol is a highly viscous transparent liquid at room temperature, but salts of pantothenic acid (for example sodium pantothenate) are powders (typically white). It is well soluble in water, alcohol and propylene glycol, soluble in ether and chloroform, and slightly soluble in glycerin.

Description:

Panthenol comes in two enantiomers, D and L. Only D-panthenol (*dexpanthenol*) is biologically active, however both forms have moisturizing properties. For cosmetic use, panthenol comes either in D form, or as a racemic mixture of D and L (DL-panthenol).

Chemical structure:



Cosmetic benefits :

In cosmetics, panthenol is a humectant, emollient and moisturizer. It binds to hair follicles readily and is a frequent component of shampoos and hair conditioners (in concentrations of 0.1-1%). It coats the hair and seals its surface, lubricating follicles and making strands appear shiny.

In ointments it is mixed with allantoin, in concentrations of up to 2-5%, and is used for treatment of sunburns, mild burns and minor skin disorders.

Panthenol is not, however, absorbed through the skin and thus has limited effects that are not due to its provitamin character.

If ingested, panthenol is metabolized to pantothenic acid.

Cosmetic applications:

Panthenol is used in skin care, hair care, nail care, sun products, after sun.

AHAs (ALPHA HYDROXY ACIDS)

AHAs are well-known for their use in the cosmetic industry. Among the most important Alpha Hydroxy Acids are: Glycolic Acid – from sugar cane, Lactic Acid - from milk, Citric Acid - from citrus fruits, Tartaric Acid - from grapes, Malic Acid - from apples and Salicylic Acid - from the bark of willow trees. They help to exfoliate the cornified layers of the skin. The skin is immediately smoother, fresher and softer. Pigmentation spots become gradually lighter.

Description:

α -hydroxy acids, or alpha hydroxy acids (AHAs), are a class of chemical compounds that consist of a carboxylic acid substituted with a hydroxy group on the adjacent carbon. They may be either naturally occurring or synthetic.

Glycolic acid is the most widely used of out of the group and is usually manufactured from sugar cane. It is fairly well known and considered the most effective of the AHAs.

Lactic acid, derived primarily from milk is considered to be milder and less irritating than glycolic acid, and is therefore considered ideal for those with sensitive skin. Its origins can be traced back to Cleopatra, who purportedly used sour milk on her skin. Citric acid from citrus fruits, malic acid from apples and pears and tartaric acid from grapes are not as common and their effectiveness is still not clear.



Sugar Cane

Properties of AHAs:

AHAs help to exfoliate the cornified layers of the skin. The skin is immediately smoother, fresher and softer. Pigmentation spots become gradually lighter.

Cosmetic applications:

AHAs are often found in products claiming to reduce wrinkles or the signs of aging, and improve the overall look and feel of the skin. They are also used as chemical peels available in a dermatologist's office, beauty and health spas and home kits, which usually contain a lower concentration. Their effectiveness is documented.

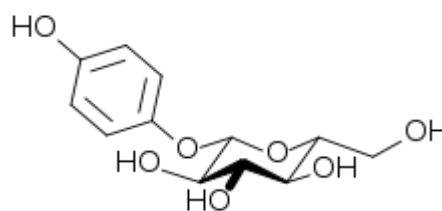
ARBUTIN

Arbutin is found in the dried leaves of a number of different plant species including bearberry (*Arctostaphylos uva-ursi*). Arbutin is an inhibitor of melanin formation and is used in skin-lightening products. It inhibits the formation of melanin pigment by inhibiting Tyrosinase activity.

Background: The skin colour is determined by the interaction of different pigments. Indeed, the red staining agent of blood, haemoglobin, is responsible for reddish and bluish shades, while carotenoids are responsible for the basic yellow shade of skin. The brown coloration results from the pigments eumelanin and pheomelanin which are produced in special epidermal cells, so-called melanocytes. The enzyme tyrosinase, usually present in its inactive form, is produced in these melanocytes. Its activation by UV light triggers off melanogenesis, i.e. a complex series of enzymatic chemical reactions which finally lead to melanin formation. The efficient inhibition of tyrosinase interrupts the melanogenesis reaction chain. Today many developments target efficient and fast enzyme-blocking properties without any side effects.

Description:

Arbutin is obtained by aqueous extraction from the aerial parts of bearberry (*Arctostaphylos uva ursi*). *Arctostaphylos uva ursi* is an evergreen perennial shrub flourishing in humus-rich soil of North America, Europe, and Asia. *Uva ursi* contains arbutin, polyphenolic tannins, free-form phenolic acids, flavonoids, triterpenes, monotropein, resin, volatile oil, and wax.



Chemical structure of Arbutin

Properties of Arbutin:

Arbutin is designed to treat dark spots and to enlighten the skin thanks to its strong tyrosinase inhibition activity.

Cosmetic applications:

Lightening gels and emulsions.

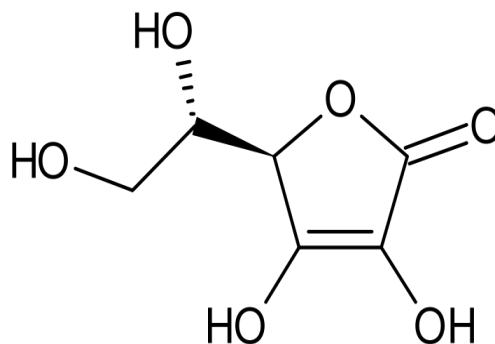
VITAMIN C (L-ASCORBIC ACID)

Vitamin C (L-ascorbic acid) is found in most higher animals and in plants in different amounts. It is synthesized in its pure form but as it is very unstable it has to be protected from water, light, air and heat. It supports the action of vitamin E by regenerating and reactivating it as a radical scavenger. Has itself scavenging properties and is involved in the formation of collagen.

Description:

Ascorbic acid is a sugar acid with antioxidant properties. Its appearance is white to light-yellow crystals or powder. It is water-soluble and must be formulated at low pH to stay active. The L-enantiomer of ascorbic acid is commonly known as vitamin C.

Chemical structure:



Properties of Vitamin C:

In clinical studies vitamin C has been found to act as an antioxidant and anti-inflammatory agent. In addition, vitamin C has been found to stimulate collagen synthesis and to reduce dark pigmentation of the skin (e.g. age spots). Thus, vitamin C is also considered an anti-aging ingredient.

Cosmetic applications:

Skin care, sun care, regeneration, repair, skin whitening.

CAVIAR EXTRACT

Caviar is the name given to the roe of sturgeon (*Acipenser spp.*) extracted directly from the female fish. It is one of the most select and prized cosmetic ingredients with a high cosmetic value based on its essential amino acids, structuring peptides, proteins, essential fatty acids and oligoelements, with a strong repair and regenerative power. Therefore, it is generally used in products for aged-skin care. Aged skin requires intense nutrition in order to recover the elements it has lost with the passage of time.

Description:

Caviar is the name given to the roe of sturgeon (*Acipenser spp.*) extracted directly from the female fish.



Caviar

Constituents of caviar:

Proteins: Caviar is a protein-rich product mainly containing the following amino-acids: arginine, histidine, isoleucine, lysine and methionine.

Lipids: Caviar lipids mainly include cholesterol (25%) and lecithin (75%).

Vitamins: Vitamin A, vitamins B2, B6, B12, niacin, pantothenic acid and folic acid.

Minerals: Calcium, magnesium, phosphorus, potassium and sodium.

Properties of caviar extract:

Skin repair activity, soothing, moisturizing.

Cosmetic applications:

Caviar extract is highly recommendable to formulate cosmetic products with skin stimulating and revitalizing activity.

HYDROLYZED HIBISCUS ESCULENTUS SEED EXTRACT

Hydrolyzed Hibiscus esculentus seed extract contains oligopeptides which have a Botox-like activity. In addition to inhibition of muscle cell contraction, demonstrated with an innovative in vitro model, the extract also protects cells and dermal macromolecules from oxidative stress. The Extract is a comprehensive, patented anti-aging active, suitable for a gentle topical treatment, effective against both mechanical and biological modes of wrinkle formation

Description:

Hibiscus esculentus (okra) is a tropical plant native to Central Africa, India, Malaysia and the Philippines. A member of the mallow family, this annual plant has been cultivated as a food source for centuries. Its long, green, mucilaginous seedpods are commonly used in traditional recipes. The high nutritional value of Hibiscus seeds has recently been confirmed scientifically. Flour and milk prepared from these seeds contain lipids and proteins having a composition close to that of the casein fraction of milk. Hibiscus seeds are hence recommended as food supplement in Africa.



Okra (*hibiscus esculentus*)

Constituents of hydrolyzed hibiscus esculentus seed extract:

Hydrolyzed hibiscus esculentus seed extract is rich in specific oligopeptides.

Properties of hydrolyzed hibiscus esculentus seed extract:

Anti wrinkle activity, cell protection against free radicals, inhibition of muscle contraction.

Cosmetic applications:

Facial anti-ageing products.