

BemaWhite

For a light skin without dark spots.

From the Bema Cosmetici Research Laboratories born the new lightening line, a specific treatment to avoid dark spots, suitable for all skin types, self and effective to use every month of year.

The Bema White lightening line is ideal for:

- depigmenting the melasma that appears after pregnancy
- solar or senile lentigo and all the brown spots that appear in the areas most exposed to solar radiation
- (face, décolleté, back of the hands)
- spots caused by photosensitizing products such as perfumes and deodorants
- home treatment after outpatient bleaching interventions (peeling, laser, cryotherapy, etc.)

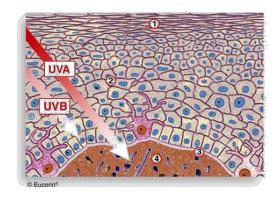
SKIN PIGMENTATION

Human skin is composed of three layers that, from the outside towards the interior, they take the name of: epidermis, dermis or hypodermis.

In the deepest layer of the epidermis, lie the melanocytes, responsible for the production of the pigment melanin (this phenomenon of MELANOGENESIS is a defense mechanism that implements the skin against the sun's rays).

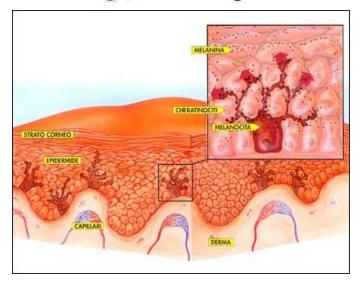
The melanin rises to the skin surface and here meets with the UV-A and oxygen that, throught the blood, reach to skin cell, this generates a reaction that causes the melanin to be colored and the skin takes the tan.

This phenomenon takes the name of direct pigmentation



1 Stratum corneum
2 Epidermis

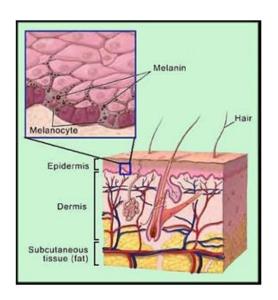
3 Basal layer
4 Dermis



ENZYMATIC REACTION

The main enzyme which regulates the process of melanogenesis is called TYROSINASE, which is a glycoprotein naturally present in the membrane of melanosomas and which is activated by UV radiations. The ENZYME TYROSINASE is able to convert the tyrosine aminoacid into melanin; the tyrosine if exposed to UV rays starts an oxidative process turning into diidroxyphenylanin or DOPA wich has the action of a substratus of tyrosynase.

The tyrosinase transforms the tyrosine into melanin in a very slow way, while the formation of melanin is speeder. Once the melanin is produced, the melanocites can transform it in cheratinocites in basal layer of epidermis. The melanin matures inside melanosomes and it is underligned to other biochemical reactions transforming it into other two important forms: EUMELANINA and FEOMELANINA.



TYROSINE



Enzyme TYROSINASE



DOPACHINON



MELANIN



FUMFLANINA

FEOMELANINA

MELANIN PRODUCTION PROCESS:

3 ARE THE MAIN CAUSES:

- **1. HORMONAL:** the hormons responsible of the melanocites distribution and their power is variable; among them the sexual femal hormones, particularly oestrogen hormones stimulate the skin pigmentation.
- During the second pregnancy term usually dark or yellowish spots appear on face; they are called **cloasma**. Usually they appear on forehead, cheeks, nose and chin. During the pregnancy the production of oestrogen hormones stimulates the melanin naturally present on skin cells, but this extra pigment is not produced in a uniforme way, that's why the creation of dark spots.
- 2. <u>GENETIC</u>: Genetic or races differences generally reflect on the number and type of melanosomas produced and not on number of melanocites.
- 3. <u>SUN RAYS EXPOSITION</u>: it causes the transfer of melanosomas so it caused the classic suntan, but at the same time the excessin sun exposure can create phenomenos of <u>photoaging and cells damages</u>.

Depending on reactivity of the skin to sun rays, we can distinguish six different phototypes:

- Phototype I: very fair complexion. Tanning is very light or inexistent. Very strong reaction to sunrays with consequent risk of permanent skin damage.
- Phototype II: Fair complexion, dark blond or light hazel hair. Sun burn risk.
 Tanning is light (golden).
- Phototype III: Quite dark skin, hazel hair. Occasional sun burn risk after long sun exposure.
- Phototype IV: Olive complexion, black hair and eyes. Very low sun burn risk.
 Tanning is quick, strong, chocolate-like.
- Phototype V e VI: iperpigmentated skin (dark-skin people)











BemaWhite



The treatment should be applied to the face, neck and décolleté, but also hands and any areas where can be appear dark spots.

LIGHTENING CLEANSING MILK

Fluid emulsion with lightening action, skin-compatible and emollient that contains a **Special lightening phyto-complex** characterized by the extract of Pomegranate and Betaine, boosted by Arbutin and Bearberry extract which play a preventive action on the onset of the dark spots.

The formulation is enriched with organic extracts of Mallow and Achillea with a soothing and emollient action that, combined with Gluconolactone, make the product suitable to the most delicate and easily reddening skin.

Effective and gentle in removing makeup and impurities from the skin, cleansing it by affinity without impoverishing it, while preserving the hydrolipidic mantle and the natural pH of the skin.



Instructions: Apply to face and décolleté using cotton pads or massage directly on your face. Rinse thoroughly with water. A daily application is recommended. External use.

LIGHTENING CLEANSING MILK

Ingredienti/Ingredients (INCI/CTFA NAME): Aqua/Water, Chamomilla Recutita* (Matricaria) Flower Water Punica Granatum* (Pomegranate)Fruit Extract, Glycine Soja* (Soybean) Oil, Glyceryl Stearate, Cetearyl Alcohol, Stearic Acid, Sodium Lauroyl Glutamate, Glycerin, Betaine, Butyrospermum Parkii *(Shea) Butter, Glyceryl Caprylate, Punica Granatum (Pomegranate)Fruit Extract , Gluconolactone, Arbutin, Salix Alba (Willow) Bark Extract, Arctostaphylus Uva-Ursi Leaf Extract, Malva Sylvestris* (Mallow) Extract, Achillea Millefolium* Extract, Benzyl Alcohol, Dehydroacetic Acid, Potassium Sorbate, Sodium Benzoate, Citric Acid, Maltodextrin, Tocopherol, Kaolin, Parfum/Fragrance.

*prodotto da agricoltura biologica/organic agriculture.

LIGHTENING FACIAL TONER

Alcohol free - for all skin types.

Alcohol-free tonic lotion, suitable for all skin types including the most sensitive because it contains organic extracts such as Mallow and Yarrow for soothing and anti-blushing action, enriched by the **special phyto-lightening complex** composed of the Pomegranate extract with a high content of ellagic acid, Betaine and Gluconolactone, herbal extracts that help reduce discolouration and prevent the formation of dark spots. The lotion is specific to finish the cleansing, eliminates the last remaining impurities, leaving your skin more luminous and soft to the touch.

Thanks to its high concentration of lightening, soothing and moisturising functional ingredients, it becomes a fundamental lotion to prepare BEMA WHITE Alginates Mask.

Instructions: apply with a cotton pad on face and décolletage. Can be used both morning and evening. A daily application is recommended. External use.



LIGHTENING FACIAL TONER

Ingredienti/Ingredients (INCI/CTFA NAME): Aqua/Water, Chamomilla Recutita* (Matricaria) Flower Water Punica Granatum* (Pomegranate)Fruit Extract, Glycerin, Punica Granatum (Pomegranate)Fruit Extract, Betaine, Gluconolactone, Panax Ginseng* Root Extract, Achillea Millefolium* Extract, Malva Sylvestris*(Mallow) Extract, Hedera Helix*(Ivy)Extract, Potassium Sorbate, Sodium Carboxymethyl Betaglucan, Citric Acid,Maltodextrin, Benzyl Alcohol, Sodium Benzoate, Parfum/Fragrance.

* da agricoltura biologica/organic agriculture

ALGINATES MASK

Alginates are natural products with highly restructuring and moisturising properties. They have a decongestant and soothing action on the skin. The Mask leaves skin the naturally illuminated, helps to convey in depth the active ingredients with a lightening action contained in the products of the BEMA WHITE treatment.



Preparation: add to sachet one measure of water (30 ml) and 1 measure (30ml) of Bema White Lightening Facial Toner, stir vigorously until mixture is smooth.

Instructions for use: apply on the area to be treated using the spatula provided; avoid the area around the eyes and the respiratory tract. Leave on for about 15 min and remove by hand when the mask is completely dry. Any residue can be removed using the Lightening Tonic. The supine position is recommended during the laying period, with cotton pads covering the eyes. Do not throw the mixture into the drain. Do not swallow. External use.

INGREDIENTI/INGREDIENTS (INCI/CTFA): Silica, Algin, Calcium Sulfate, Tetrasodium Pyrophosphate, Xanthan Gum.

LIGHTENING FACE SCRUB

Smoothing Face Scrub for all skin types, even the most sensitive, with a depigmenting action thanks to the **special lightening phyto-complex** characterized by the Pomegranate extract and Betaine, powered by Arbutin and the Bearberry extract with a preventive action on the onset of dark spots of the skin.

Characterized by a double exfoliant action: mechanical given by Apricot pits and enzymatic from the mix of enzymes contained in Pineapple and Papaya and Gluconolactone which act in depth by stimulating natural cell regeneration, leaving the skin oxygenated and supple.

Gives the skin a naturally glowing complexion and is a key step to prepare the skin to receive the functional lightening principles of the BEMA WHITE treatment.



INSTRUCTIONS:

For normal to oily skin: Apply the Lightening Scrub 2 times a week on the face, neck and décolleté and massage gently, then rinse with warm water.

For especially sensitive skins: Apply the Lightening Scrub once a week. Spread the product evenly on your face (avoiding the eye area) and leave on for 5-7 minutes. Rinse thoroughly with warm water.

LIGHTENING FACE SCRUB

Ingredienti/Ingredients (INCI/CTFA NAME): Aqua/Water, Chamomilla Recutita* (Matricaria)Flower Water, Punica Granatum *(Pomegranate)Fruit Extract, Cetearyl Glucoside, Dicaprylyl Carbonate, Cetearyl Alcohol, Glycine Soja* (Soybean) Oil, Prunus Armeniaca (Apricot) Seed Powder, Glycerin, Oryza Sativa (Rice) Germ Oil, Betaine, Gluconolactone, Cocoglycerides, Potassium Cetyl Phosphate, Glyceryl Caprylate, Carica Papaia (Papaya) Fruit Juice, Ananas Sativus* (Pineapple) Fruit Extract, Arctostaphylos Uva-Ursi Leaf Extract, Punica Granatum (Pomegranate)Fruit Extract, Hydrolyzed Hibiscus Esculentus Extract, Salix Álba (Willow) Bark Extract, Tocopherol, Benzyl Alcohol, Dehydroacetic Acid, Potassium Sorbate, Sodium Benzoate, Maltodextrin, Kaolin, Parfum/Fragrance. *prodotto da agricoltura biologica/organic agriculture

LIGHTENING SERUM

Specific cosmetic treatment to reduce skin discolouration thanks to the **special phyto-lightening complex**, which acts in a targeted and intense way on hyperpigmentation. The Pomegranate extract and Betaine have a lightening and depigmenting action; the Arbutin and Bearberry prevent the uneven production of melanin, the main cause of unsightly dark spots.

The formulation is enriched by natural extracts with an antiageing and lifting action, like the Vigna Aconitifoglia, the Pisum Sativum and Hibiscus that allow the skin to regain its natural brightness and compactness.

Instructions: Apply a few drops of serum on face, neck and décolleté every day before the BEMA WHITE Lightening Cream through a gentle massage. Avoid the periocular area. External use.



LIGHTENING SERUM

Ingredienti/Ingredients (INCI/CTFA): Aqua/Water, Chamomilla Recutita* (Matricaria) Flower Water, Punica Granatum* (Pomegranate) Fruit Extract, Cetearyl Glucoside, Cetearyl Alcohol, Glycerin, Coco-Caprylate, Arbutin, Betaine, Hexyldecanol, Hexyldecyl Laurate, Behenyl Alcohol, Cetyl Palmitate, Kaolin, Gluconolactone, Sodium Stearoyl Glutamate, Pisum Sativum (Pea) Extract, Xanthan Gum, Porphyridium Polysaccharide, Punica Granatum (Pomegranate)Fruit Extract, Vigna Aconitifolia Seed Extract, Porphyra Umbilicalis Extract, Arctostaphylus Uva-Ursi, Hydrolyzed Hibiscus Esculentus Extract, Benzyl Alcohol, Tocopherol, Dehydroacetic Acid, Sodium Cocoyl Glutamate, Sucrose Dilaurate, Maltodextrin, Sodium Lactate, Potassium Sorbate, Sodium Benzoate, Parfum/Fragrance.

*Da agricoltura biologica/organic agriculture.

LIGHTENING FACE CREAM

Cosmetic treatment specifically formulated for a targeted anti stain and depigmenting action, restores to the skin its pale and naturally luminous complexion.

Composed of a **special phyto-lightening complex**, consisting of natural plant extracts such as Pomegranate, rich in ellagic acid, Betaine, Arbutin and Bearberry that hinder excessive production of melanin and prevent the onset of unsightly brown spots.

The formulation is completed by Hibiscus extract, Vigna Aconitifoglia and Pisum Sativum that hinder expression wrinkles by protecting the skin from external agents and oxidants.

It contains two natural sunscreens: Mica and Porfiria Umbilicalis, which protect the skin from harmful sunrays, main cause of premature ageing of the skin and uneven complexion.

Instructions: Apply a gentle massage on face, neck and décolleté every day, even twice a day. A regular and constant use of BEMA WHITE Lightening Cream combined with BEMA WHITE Lightening Serum makes your skin naturally brighter and more compact. We do not recommend prolonged sun exposure during treatment. External use.



LIGHTENING FACE CREAM

Ingredienti/Ingredients (INCI/CTFA NAME): Aqua/Water, Chamomilla Recutita* (Matricaria) Flower Water, Punica Granatum*(Pomegranate)Fruit Extract, Hexyldecanol, Hexyldecyl Laurate, Olea Europaea*(Olive)Fruit Extract, Cetearyl Glucoside, Glycerin, Cetearyl Alcohol, Dicaprylyl Carbonate, Arbutin, Betaine, Potassium Cetyl Phosphate,Macadamia Ternifolia*Seed Oil, Glyceryl Stearate, Mica, Titanium Dioxide, Gluconolactone, Punica Granatum (Pomegranate)Fruit Extract, Butyrospermum Parkii*(Shea)Butter, Simmondsia Chinensis*(Jojoba)Oil, Euphorbia Cerifera(Candelilla)Wax, Hydrolized Hibiscus Esculentus Extract, Vigna Aconitifolia Seed Extract, Arctostaphylos Uva-Ursi Leaf Extract, Pisum Sativum (Pea)Extract, Porphyra Umbilicalis Extract, Ribes Nigrum* (Black Currant) Seed Oil, Sodium Cocoyl Glutamate, Sucrose Dilaurate, Benzyl Alcohol, Sodium Lactate, Sodium Benzoate, Potassium Sorbate, Tocopherol, Kaolin, Dehydroacetic Acid, Maltodextrin, Parfum/Fragrance.

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LIGHTENING FACE MASK

Lightening cosmetic treatment consisting of a special phytolightening complex, composed of natural plant extracts such a pomegranate, rich in ellagic acid, Betaine, Arbutin and Bearberry that help reduce skin blemishes and are ideal to prevent and regulate skin hyperpigmentation. The skin is hydrated and supple thanks to the Organic Avocado Oil and Organic Olive Oil. The result is a uniform and naturally bright complexion.

Instructions: After thorough cleansing, apply a light layer to face and decolleté and leave on for 10-15 minutes. Remove gently with a cotton pad and rinse thoroughly with lukewarm water. We recommend the use of BEMA WHITE Whitening Cream after applying the mask.

Ingredienti/Ingredients (INCI/CTFA): Aqua/Water, Cetearyl Glucoside, Cetearyl Alcohol, Chamomilla Recutita*(Matricaria)Flower Water, Punica Granatum*(Pomegranate)Fruit Extract, Dicaprylyl Carbonate, Glycerin, Glycine Soja*(Soybean)Oil, Betaine, Arbutin, Oryza Sativa (Rice)Germ Oil, Kaolin, Potassium Cetyl Phosphate, Cocoglycerides, Titanium Dioxide, Gluconolactone, Punica Granatum (Pomegranate)Fruit Extract, Olea Europaea*(Olive)Fruit Oil, Persea Gratissima*(Avocado)Oil, Mica, Titanium Dioxide, Vigna Aconitifolia Seed Extract, Maltodextrin, Hydrolized Hibiscus Esculentus Extract, Dextrin, Arctostaphylos Uva-Ursi Leaf Extract, Pisum Sativum (Pea)Extract, Sodium Cocoyl Glutamate, Sucrose Dilaurate, Tocopherol, Benzyl Alcohol, Dehydroacetic Acid, Parfum/Fragrance.



BemaWhite suggestions:

Apply Lightening Face Scrub twice a week

- The treatment starts on Monday: apply on the area to be treated massaging for a few minutes, then rinse plentifully with warm water.
- On Thersday: Apply Lightening Face Scrub on the area to be treated (as it would be a mask), do not massage, leave it on for 5 / 7 minutes then rinse with warm water.

BemaWhite

- 1. USE BEMA WHITE SERUM EVERY DAY BEFORE APPLYING THE CREAM.
- 2. APPLICATION OF THE Bema White FACE CREAM
- When the serum will be completaly absorbed, apply a little quantity of cream on the treatment zone.

IMPORTANT ADVISE:

- The treatment has to be done daily, morning and evening.
- The duration of treatment is 4 weeks.

Skin Lightening Treatment

4-week treatment – Products to use:

- Lightening Cleansing Milk, Lightening Facial Toner, Lightening Serum and Lightening Face Cream to apply daily, twice a day.
- Once a week: Alginates Mask
- Twice a week: Lightening Face Scrub (once a week in mechanical massaging the entire area of application and the other time: to leave it for a few minutes then rinse with water)

ALGINATES MASK PREPARATION

- Add to sachet one measure of water (30 ml) and 1 measure (30ml) of Bema White Lightening Facial Toner, stir vigorously until mixture is smooth.
- Instructions for use: apply on the area to be treated using the spatula provided; avoid the area around the eyes and the respiratory tract. Leave on for about 15 min and remove by hand when the mask is completely dry. Any residue can be removed using the Lightening Tonic. The supine position is recommended during the laying period, with cotton pads covering the eyes. Do not throw the mixture into the drain. Do not swallow. External use.

Functional herbal ingredients used:

- Pomegranate extract rich in ellagic acid, it acts on the pigmentation of the skin through an inhibitory effect on the melanogenesis
- **Betaine** is a natural compound extracted from sugar beets that increases skin hydration and protects it, reducing irritation phenomena
- Arbutin contained in Bearberry leaves has depigmenting properties as it integrates into the process of melanin synthesis and inhibits the tyrosinase enzyme; it also has good antioxidant capacities, thus helping to reduce the amount of free radicals generated by UV rays.
- **Gluconolactone** is a hydroxyacid also suitable for delicate and sensitive skin, it has antioxidant functions, since it reduces the damage caused by UV rays and the resulting photoageing, and also has antiageing properties because it increases the dermal production of collagen, hyaluronic acid and fibroblasts
- **Porphyra Umbilicalis** is a red macroalgae, very important for the balance of the skin as it is rich in Omega-3, iron and vitamins. It prevents and relieves the skin ageing process as it protects the skin from UVA/UVB rays.

Pomegranate Extract-ELLAGIC ACID:

Pomegranate (Punica granatum L.) belongs to Punicaceae family, gender Punica, species: P. granatum.

Pomegranate Juice is a strong antioxydant, antibacterial and anticancer rich in **ellagic acid.**

Ellagic acid is a natural phenol antioxidant found in big quantity in Pomegranates. The antiproliferative and antioxidant properties of ellagic acid have spurred preliminary research into the potential health benefits of ellagic acid consumption. Ellagic acid has antiproliferative and antioxidant properties useful for anti aging.



Ellagic Acid: NATURAL ANTI SPOT

The ellagic acid, extracted from the POMEGRANATES' PEEL, acts against skin pigmentation through melanogenesis. The antiproliferative properties of ellagic acid may be due to its ability to directly inhibit the DNA binding of certain carcinogens, including nitrosamines and polycyclic aromatic hydrocarbons. As with other polyphenol antioxidants, ellagic acid has a chemoprotective effect in cellular models by reducing oxidative stress. Improves dull skin tone and minimizes the visible effects of sun damage and skin stresses, helps prevent future darkening of the skin. The ellagic acid is ideal for detox the smoker skin, duller and darker then the other ones.





BETAINE AND NATURE

It is present inside:

Sugar beet



VEGETABLES

Pea seeds
Spinaches
Beans
Bean sprout



FRUITS
Orange
Lemon
Grapefruit



FISH



Wheat Barley Mais Oats



BETAINE IN COSMETIC PRODUCTS:

Betaine for skin-care:

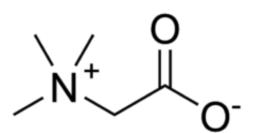
- •Lightening / Brightening
- Anti-ageing
- Deep moisturization
- Antinflammatory

Betaine for hair-care:

- strenghtening the hair
- Protect hair scalp
- it softens the hair

Betaine for oral-care:

- Brightening teeth
- Reduce dryness
- •Reduce irritations that can be caused by toothpastes.



ORIGIN	Natural
PLANT	Beta Vulgaris (Sugar Beet)
FAMILY	Chenopodiaceae
INCI/CTFA NAME	Betaine
FUNCTION	HUMECTANT/MOISTURIZING
SINONIMOUS	Trimethylglycine

Lightening properties of BETAINE:

Recent studies effectuated on Betaine in Thailand has shown the great whitening function on skin using lotion containing Betaine on the concentration of 4 %.

Results have underligned a very good lightening effect on skin. 100% of people who effectuated the test have noticed a lightening effect on dark sposts. 90% people declared that the dimension of dark spots have been reduced.

This is possible because the Betaine acts as anti inflammatory element preventing the stimulating process of melanocites.

Betaine is employed in many cosmetic products, from detergents to hair care products and skin care products. This is soluble in water so it can be easily introduced in the watery phase of a formulation. Its function is to be humectant and moisturizer (from 1% to 10%) and it has an excellent toxicologic profile (employed as food supplement). It is suitable to very sensitive skins.

PISUM SATIVUM

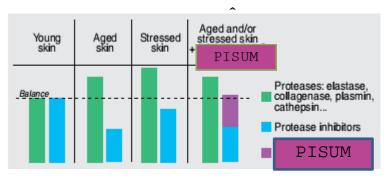
Multi-Function:

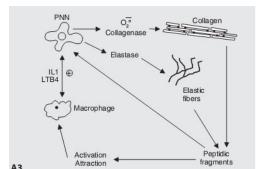
- 1-Anti-elastase, anti-collagenase and anti-free radicals properties.
- 2.Protector of dermal proteins: anti-aging effect. Protects collagen and elastin against the deleterious effects of proteases activated during aging and stress.
- 3.BRIGHTENING, protection and repair of epidermal proteins. Against damages induced by proteases activated by environmental aggressions (pollution, stress, UV...).
- 4. Strengthening skin elasticity. Anti-aging effect for slackened, atonic skin.
- 5.Long-lasting hydroregulator. Intervening according to a unique mechanism of action: inhibition of an excess of proteases within horny layers

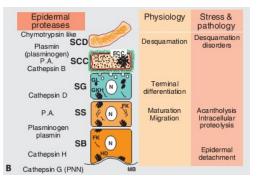


PISUM SATIVUM

is a botanical peptidic active ingredient, prepared according to an exclusive extraction/ purification technology. Certain proteases inhibitors (elastase, collagenase, trypsin, cathepsin, plasmin...) offer interesting features. When in excess, they contribute to skin aging and damage by environmental aggressions. The permanent remodeling of the skin requires a narrow balance between dermal and epidermal proteases and their inhibitors. Pisum strengthens the activity rate of protease inhibitors, helping to restore the balance between proteases and anti-proteases.







BEARBERRY

- The phytocomplex is composed by tannins, triterpens, flavonoides and organic acids. It is a brown colour powder. Its most important components are: idrochinonic glucosides, arbutin and metylarbutin.
- ARBUTIN WHILE INHIBITING ENZYME TYROSINASE, STOPS MELANIN BIOSYNTHESIS. MOREOVER ARBUTIN TURNS MELANIN INTO A COLOURLESS PIGMENT



VIGNA ACONITIFOLIA

Vigna Aconitifolia Marechal or " Moth Bean " is a yearly plant belonging to the Family of Leguminosae.

The origin of this plant is India and Pakistan where it grows spontanously but it can also be cultivated. Now, you can find it in China, Sri Lanka, Africa, United States and Thailand.

Its seeds are employed in medicine against fiever or used as fertilizer on cotton crops.

Main components - VIGNA ACONITIFOLIA

VIGNA ACONITIFOLIA SEEDS MAINLY CONTAIN: carbohydrate (da 56 a 62 %)

- proteins (22 al 24%)
- water (11 %)
- lipides (1,9%)
- poliphenols (1,3%)

BENEFITS FOR THE SKIN

- Stimulate skin renewal
- Stimulate the synthesis of collagen
- Reduces wrinkles

Gluconolactone

- Gluconolactone is a polyhydroyacid.
- Exfoliating: It is a delicate scrub suitable for very sensitive skins too. Applied on skin it favours the exfoliation and the cell renewal, modeling the cheratinization process.
 Antioxydant: it reduces damages causd by UV rays and consequent photoaging.
- Antiageing: it increases the production of collagen, ialuronic acid and fibroblastes at skin level
- Moisturizing: it moisturises the skin layer

Efficacy Test Results from Ferrara University





- Instrumental assessment of the reduction of the perceptual gap induced by cosmetic products during long-term testing
- This test evaluates the reduction of hyperpigmentation induced skin cosmetics by instrumental detection of skin response application
- METHOD OF VOLOUNTEER SELECTION
- 14 subjects of male and female sex over 18 years:
- good state of health
- absence of cutaneous pathologieS
- absence of pharmacological treatments in progress
- no atopy in the anamnesis
- AVERAGE YEAR OF LIGHTENING TREATMENT: 45,5 YEARS OLD

PLACE OF EXPERIMENTATION:

• Conditioned atmosphere at 21°C and with around 50% of damp. The subjects acclimatize at least 30 minutes before the measurements. <u>The measurements will be the average of three values.</u>

SKIN SURFACE WITH SKIN UNAESTHETISM DEFINITION OF 9 cm² (3x3 cm)AREAS



The instrument used for the effocacy test execution is *Video* dermatoscopio Medicalscope,

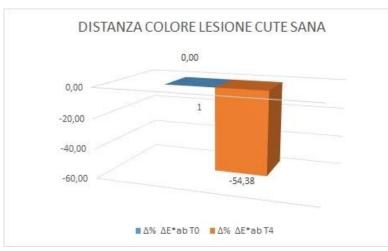
The photographic survey has been performed through digital camera



Fujifilm FinePix S2000HD

Efficacy Test Results





For the final assessment of the data was performed statistical analysis of the mean values of the color distance.

The measured values at time T_0 , before applying the product, were compared with those recorded for the time T_4

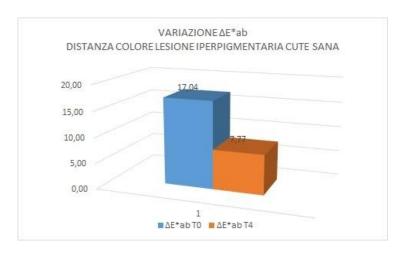
The results are expressed as the change in the color distance over time, compared to values measured at T_0 .

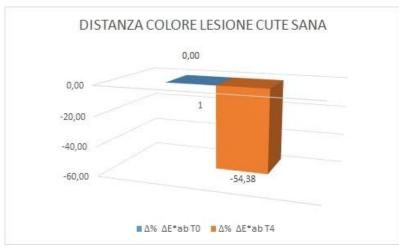
The data obtained from measurements were used for the graphics processing.

The statistical test used is the Wilcoxon test for nonparametric data, significant at $p \le 0.05$, very significant at $p \le 0.01$.

C* Chroma [C*= $(a^{*2} + b^{*2})^{1/2}$] (skin colour) $\Delta E^*ab = [(\Delta L^*)^2 + (\Delta a^*)^2 + (\Delta b^*)^2]^{1/2}$ (colour difference) (difference of colour between healthy skin and hyperpigmented skin)

Efficacy Test Results





All subjects enrolled have completed the test The subjects of a mean age of 45.50 years were subjected to experimentation; the group has not presented dermatological problems following treatment.

The trial has highlighted a **significant decrease** in the "color distance" allowing a reduction in the perception of the iperpigmented area per the product under test.

In particular it was possible to highlight:
a significant reduction in skin color distance (ΔΕ * ab value) of **54.38%** (p 0.0006) **after 4 weeks of treatment.**

AFTER 4 WEEKS

BEFORE (T₀₎



AFTER (T₄₎



AFTER 4 WEEKS

BEFORE T₀



AFTER T₄



ECOLOGICAL NEWS AND ENVIRONMENTAL IMPACT

Products contain organic extracts and they are certified by ICEA

Products of natural origin

They do not contain synthetic additives

Colouring agents free

Emulsionants are 100% biodegradable

Alcohol free

NON GMO

They do not contain animal derivatives

They do not contain oil derivatives and silicones

They have not been tested on animals

They are Nickel, Chromium and Cobalt tested

Dermatologically tested

Microbiologically checked

Dioxin free

They do not produce noxious substances in the atmosphere during the working process

ECOLOGICAL NEWS AND ENVIRONMENTAL IMPACT

The boxes are made of ecological carton, they are not whitened with chlorine

The printing is made with water inks

The plastic containers are made of polyethylene high density and low density, easy to recycle.

We recycle the forwarding packing materials

Our quality system is certified in accordance with UNI EN ISO 9001:2008 regulations.

This allows to optimize at most the cycle of production, reducing and eliminate potential consumptions It contributes to the

NICKEL CHROMIUN

TESTED

<0,1 ppm

Environment respect Energetic saving

The ICEA Certificate guarantees the mankind's health and of the environment he lives.



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