Mediterranean cold pressed virgin oils
Mediterranean essential oils

BIONAP srl
Bioactive Natural Products
Who we are
Founded in 1997, BIONAP is an Italian company which produces standardized extracts for nutraceuticals and cosmeceuticals. Our mission is to discover active substances contained in Mediterranean foods and plants and to create ingredients for wellbeing and beauty products.

Quality and Research
From the initial selection of raw materials to the final extracts, BIONAP strictly controls the whole production process to ensure the highest manufacturing standards. The efficacy and safety of BIONAP extracts are supported by continuous scientific research and the effectiveness of BIONAP ingredients has been proven by several experimental and clinical trials, published in international scientific journals. Innovative technologies and our qualified team of experts make BIONAP a serious and reliable partner.
Mediterranean cold pressed virgin oils

- Nigella oil
- Cardo oil
- Pistachio oil
- Hazelnut oil
- Opuntia oil
- Yellow sesame oil
- Pine nut oil
- Wild olive oil
- Lentisco oil
- Tomato oil
- Pomegranate oil
- Chia oil

Mediterranean essential oils

- 100% Natural and pure - From organic agriculture
- 100% Sicilian
- High standardization of the chemotypes

- Thymus vulgaris
- Thymus capitatus
- Origanum hirtum
- Mentha suaveolens
- Salvia officinalis
- Lavandin sumian
- Lavandin grosso
- Rosmarinus officinalis
- Citrus reticulata (mandarin)
- Citrus sinensis (red orange)
- Citrus limon (lemon)
NIGELLA Oil
Cold pressed virgin oils

INCI NAME: Nigella sativa seed oil

BACKGROUND

Nigella sativa, commonly known as black seed or black cumin, is a plant which has been extensively used for centuries in folk medicines by the Asians, the Africans and the Middle East people. The popularity of this plant was highly enhanced by the popular belief in herbs as a panacea. The oil extracted from the seeds was a precious remedy for the Egyptians who named it “Pharaoh’s oil” for its healthy properties.

Nowadays, Nigella oil finds topical application in the supportive treatment of different skin inflammatory conditions, for its antimicrobial and antioxidant properties.

COSMETIC PROPERTIES

Nigella oil is an amber-yellow colored oil, and this suggests the presence of carotenoids, which are natural antioxidants and photo-protective molecules. A scientific investigation reported that cold pressed black cumin oil has a higher radical scavenger activity than extra virgin olive oil, in DPPH and galvinoxyl radicals assays.

The topical application of black cumin seed oil is of great use in skin eruptions. In detail, the seed oil, containing thymoquinone, the major constituent of the essential oil, inhibits the eicosanoid generation and the membrane lipid peroxidation, through the inhibition of cyclooxygenase and 5-lipoxygenase (5-LO) pathways of arachidonate metabolism, leading to an anti-inflammatory activity. Consequently, Nigella oil can find topical application for the cosmeceutical treatment of skin inflammatory conditions such as psoriasis and eczema. The soothing and nourishing effects are also due to the phytosterols contained in the oil. Furthermore, it is active against several bacteria and yeast. All these features make Nigella oil ideal for cosmetic products aimed for sensitive skin.

APPEARANCE AND SENSORIALITY: Nigella oil has an amber yellow color and a spicy smell. It is highly nourishing/emollient and leaves the skin smooth and silky.

APPLICATIONS

- Cosmeceutical treatment of skin inflammatory conditions
- Products for sensitive and dry skin
- Hair care
- Massage oil

Recommended dose: 0.5 - 5%

REFERENCES

1. Ramadan MF et al., Antiradical and antimicrobial properties of cold-pressed black and cumin oil, Eur Food Res Techn 234: 833-844 (2012)
7. Herman L. et al., Fatty acid profile, thymoquinone content, oxidative stability, and antioxidant properties of cold-pressed black cumin seed oils, LWT-Food Science and Tech 43 (2010) 1409-1413
The term "Cynara" seems to derive from the greek word "cinere", which means cinder, because artichoke was fertilized by cinder, or according to mythology, the word cynara comes from the hair color of a young woman which Jupiter fell in love with. The legend says that Jupiter turned her into an artichoke. The plant has been used since the dawning of civilization. In fact, artichoke owns many healthy properties due to the content of flavonoids, phenolic acids and minerals. Cardo oil is obtained by the cold pressing of the seeds.

Cardo oil has a high level of phytosterols with a unique composition comprising spinasterol, 7- stigmastenol and Δ7- avenasterol. Phytosterols are effective anti-inflammatory compounds and they are able to down-regulate MMP-1 and, moreover, increase the synthesis of collagen fibers. These features make Cardo oil ideal for antiaging formulations and sunscreen products thanks to the protective effect of the phytosterols against UVA radiations.

Cardo oil contains vitamin E as α-tocopherol for almost 100% and this isoform is well known to show the highest vitamin E activity, thus making the oil an excellent antioxidant and antiaging ingredient.

The oil is also a good source of polyunsaturated fatty acids. Among them, the most abundant is linoleic acid which, in synergism with phytosterols, has a key role in the skin barrier function.

Cardo oil has a gold yellow color and mild odor. It is highly nourishing and emollient. It leaves skin smooth, without greasy residue.

**REFERENCES**

1. Minar Mahmoud M. et al., Investigation of lipids profiles of Nigella, Lupin and Artichoke seed oils to be used as healthy oils, J Oleo Sci. 60, (3) 99-107 (2011)
Native to the Middle East, pistachios are one of the oldest flowering nut trees. The ancients appreciated the medicinal virtues and the aphrodisiac properties, as the quotes of the fruit in the Old Testament report. It was imported for the first time by Romans in Italy, and a second time when Arabs conquered Sicily. Pistachios grow in flourishing hot climates from the Middle East to the Mediterranean. The pistachio oil is obtained by cold pressing the seeds. This oil is mainly used in the food industry for its potent aroma. It has recently been reevaluated as a cosmetic ingredient.

**BACKGROUND**

Pistachio oil has a very well balanced ratio of Omega-6 (essential fatty acids) and Omega-9 responsible for its nourishing and emollient properties. It makes skin silky and smooth. The oil can be considered as a booster of the skin bioavailability because the oleic acid, contained in it, has a good affinity to the intercornocyte cement and the active substances can go through the hydrolipidic film. Pistachio oil is rich in vitamin E, mainly γ-tocopherol, antioxidant which helps to neutralize free radicals preventing premature aging. Vitamin E plays a crucial role in maintaining a good degree of hydration and in the prevention of an excessive trans epidermal water loss. Furthermore, pistachio oil is a natural source of linoleic acid and β-sitosterol, which are 5α-reductase inhibitors and also effective lenitive compounds. Moreover, linoleic acid helps to re-fat and boost the intercornocyte cement.

An additional benefit of pistachio oil is its ability to help strengthen hair after its long-term use. Pistachio oil protects and rehabilitates hair fibers, prevents split ends and untangles knots of all hair types. Thanks to the amount of Omega 3, 6 and 9 it provides softness, elasticity, gloss and shine to the hair.

**APPEARANCE AND SENSORIALITY:** Pistachio oil presents a greenish yellow color and a soft and typical smell. It has low spreading and absorbs well into the skin leaving it nourished and smooth.

**APPLICATIONS**

- Hair care products
- Antiaging products
- Moisturizing products
- Massage oil

**REFERENCES**

2. Ozcan, Mehmet Musa et al., Physical and chemical properties of some seed and kernel oils, Asian Journal of Chemistry (2010), 22(8), 6531-6536
3. Arranz, Sara et al., Comparison between free radical scavenging capacity and oxidative stability of nut oils, Food Chemistry (2008), 110(4), 985-990
HAZELNUT Oil
Cold pressed virgin oils

HAZELNUT Oil

HAZELNUT has an ancient and fascinating history. Charred fragments of hazelnut shells were found in many Stone Age sites (8000–2700 BCE). A manuscript found in China from the year 2838 BCE lists hazelnuts as one of China’s five sacred foods. In Greek mythology, the winged hazel rod described in the legend of Apollo and Mercury symbolizes reconciliation, communication, and commerce. The famous Roman historian, Pliny, recorded that hazels were frequently gathered by the Romans to eat. Moreover, ancient Romans associated the hazel with marriage rituals. Hazelnut is also known as filbert, name connected with Saint Philbert’s Day, the day when harvesting the nuts began. The European hazelnut (C. avellana) grows in many parts of Europe and Asia and has been a food source for humans since prehistoric times. Hazelnut oil is produced from shelled and cold pressed hazelnuts. It is used in food preparations and beauty products for its many useful properties.

BACKGROUND

COSMETIC PROPERTIES

Hazelnut oil is a good ingredient to counteract signs of aging: thanks to the high content in vitamin E, Hazelnut oil acts as an antioxidant and radical scavenger helping to counteract the onset of premature signs of aging (wrinkle, loss of tone). It is a nourishing and moisturizing agent, because it has a good amount of essential fatty acids (mainly linoleic acid) and phytosterols which improve the aspect of stretchmarks and scars. The presence of catechins and tannins gives astringent property and makes the oil quite dry with quick absorption. It reduces pore size and the excess sebum production on skin and scalp. It is useful for oily and acne prone skin.

Hazelnut oil is also frequently used in sunscreen products because it absorbs the damaging UV components of sunlight, and can also prevent the generation of free radicals from sunlight and atmospheric pollutants such as traffic and industrial emissions. These features make the oil ideal for hair care products.

Hazelnut oil has lenitive property thanks to the presence of flavonoids and it can be applied on sensitive skin and used for baby care products. It also stimulates blood circulation and collagen and elastin production. Moreover, it contains minerals such as potassium, calcium and magnesium.

APPEARANCE AND SENSORIALITY: Hazelnut oil has a pale yellow color and a typical odor. It has a silky and dry feel. It does not leave any greasy residue.

APPLICATIONS

- Oily and acne prone skin formulations
- Anti-aging products
- Sunscreen products
- Hair care
- Baby care
- Massage oil

Recommended dose: 0.5 -5%

REFERENCES

Opuntia ficus indica plant (prickly pear) was introduced in the Mediterranean area in the 16th century and according to the tradition, prickly pear was a typical food for peasants, in particular during the harvesting of grapes. In fact, the landowners donated prickly pears to the peasants to avoid that they ate too many grapes during the harvest. Opuntia oil is obtained by cold pressing the seeds. Its use dates back to Aztecs who already knew the properties of the oil. It was used to soothe burns and promote wound healing.

COSMETIC PROPERTIES

Opuntia oil is well known for its anti-aging properties, improving the typical signs such as loss of tone, skin wrinkles, bags under eyes and dryness. It is soothing, protective, nourishing and regenerative. In fact, it promotes the cellular turnover which decreases with age and also restores skin hydration, softness and elasticity.

These properties are closely related to the exceptional level of phytosterol, mainly β-sitosterol and polyunsatured fatty acids (vitamin F). Moreover, the oil is a rich source of antioxidants, especially Y-tocopherol. Opuntia oil is particularly indicated for mature, dry and relaxed skins.

Furthermore, it can be applied directly on hair helping to prevent split ends, and providing relief to itching and dry scalp.

Did you know..?
The 90% of Opuntia ficus indica cultivations is in Sicily, which has two trademarks PDO (Protected Designation of Origin): Ficodindia dell’Etna PDO and Ficodindia del Cono PDO.

APPEARANCE AND SENSORIALITY: Opuntia oil has an orange-yellow color and a characteristic odor. It is quickly absorbed, deeply penetrates the epidermis leaving skin velvety.

APPLICATIONS

- Formulation aimed at mature, dry a/o alipidic skin
- Anti aging products
- Hair care products
- Stretch mark products
- After sun products

Recommended dose: 0,5 -5%

REFERENCES

2. Ennouri, Monia et al., Fatty acid composition and rheological behaviour of prickly pear seed oils, Food Chemistry (2005), 93(3), 431-437
3. Ramadan et al., Oil cactus pear (Opuntia ficus-indica L.), Food Chemistry (2003), 82(3), 339-345
**SESAMUM INDICUM L.** is an herbaceous annual plant belonging to the Pedaliaceae family. It is the most ancient known condiment of mankind history. The plant has been cultivated in Mesopotamia for at least four thousand years and the Egyptians used it as a therapeutic drug. The women in Babylon employed sesame oil as a cosmetic and food. According to the tradition, sesame oil was used to maintain sexual abilities. The seeds are still used in the food industry. Yellow sesame oil is produced by the cold pressing of the seeds and it can be used for many cosmetic applications.

**BACKGROUND**

Yellow sesame oil has a remarkable antioxidant activity closely related to the content of tocopherols (mainly γ-) and lignans (sesamin, sesamol, sesamolin), which are responsible for the great stability of sesame oil to oxidation. These compounds make the oil very suitable for formulations aimed at counteracting the signs of skin aging and photoaging. An in vitro study evaluated the ability of sesamin to prevent hair loss thanks to the inhibition of 5-α reductase, related to the antioxidant activity, especially the lipid peroxidation inhibition and metal ion chelating activities. In fact, lipid peroxidation in hair dermal papilla can lead to cell damage and hair shedding.

The same study confirmed the traditional use of sesame oil for grey hair treatment, thanks to the ability of sesamin to induce melanin production and increase the tyrosinase activity. The oil has healing effects, soothes minor burn or sunburn and it is naturally antibacterial for common skin pathogens. It also has a good penetration in the deeper layers of the epidermis and into the scalp.

**APPEARANCE AND SENSORIALITY:** Yellow Sesame oil has a pale yellow color and a soft smell. It has a low viscosity and deeply penetrates epidermis and scalp.

**APPLICATIONS**

- Anti-aging products
- Hair care
- Sun care (sun protection, after sun products)
- Products for sensitive skin
- Baby care
- Massage oil
- Make-up products

**COSMETIC PROPERTIES**

Yellow sesame oil has a remarkable antioxidant activity closely related to the content of tocopherols (mainly γ-) and lignans (sesamin, sesamol, sesamolin), which are responsible for the great stability of sesame oil to oxidation. These compounds make the oil very suitable for formulations aimed at counteracting the signs of skin aging and photoaging. An in vitro study evaluated the ability of sesamin to prevent hair loss thanks to the inhibition of 5-α reductase, related to the antioxidant activity, especially the lipid peroxidation inhibition and metal ion chelating activities. In fact, lipid peroxidation in hair dermal papilla can lead to cell damage and hair shedding.

The same study confirmed the traditional use of sesame oil for grey hair treatment, thanks to the ability of sesamin to induce melanin production and increase the tyrosinase activity. The oil has healing effects, soothes minor burn or sunburn and it is naturally antibacterial for common skin pathogens. It also has a good penetration in the deeper layers of the epidermis and into the scalp.

**REFERENCES**

PINE NUTOIL
Cold pressed virgin oils

INCI NAME: Pinus pinea kernel oil

BACKGROUND

Pinus pinea is a characteristic species of the Mediterranean basin, especially of the Italian coast, where its umbrella-like foliage crown gives the environment a distinctive profile.

Growing from coastal areas to hillsides, its fruits (in Italian pinoli) are common in cooking where their nutty flavor are preferred in a number of traditional recipes. Since ancient times, people (especially kids), living in the countryside, collect pinoli to eat them. They have a delicious taste.

Pine nut seed oil is obtained by the cold pressing of the seeds.

COSMETIC PROPERTIES

Pine nut oil is not well-known in the cosmetic field. It has good emollient and nourishing properties.

The oil enhances and restores the skin barrier, promoting the hydration and the maintenance of cutaneous elasticity. It has a good amount of β-sitosterol, campesterol and Δ-5 avenasterol which have a remarkable anti-inflammatory activity, and help to counteract skin photo-aging signs like wrinkles, loss of cutaneous tone thanks to the ability to inhibit the up-regulation UV-induced of MMPs.

Pine nut oil is also a natural antioxidant source of α- and γ- tocopherol. It can be used to protect and nourish damaged and brittle hair.

APPLICATIONS

- Anti-aging products
- Moisturizing products
- Products for sensitive skin
- Hair care
- Massage oil

Recommended dose: 0.5 - 5%

REFERENCES


APPEARANCE AND SENSORIALITY: Pine nut oil has a gold yellow color and mild odor. It is a nourishing oil which does not leave any grease residue.
Wild olive trees (Olea europaea var. sylvestris) are typical of the Sardinian countryside. Their silvery foliage and twisted old trunks give environment a definite and recognizable profile. Fruits of wild olive trees, reddish-green coloured, contain a small amount of oil with exclusive organoleptic characteristics. In the past, native people used to mix wild olive oil with cultivated olive oil, to improve the taste of the finished product. Although a less common product of olive production, it has a better chemical profile and stability than common olive oil.

APPEARANCE AND SENSORIALITY: Wild olive oil has a yellow color and a typical smell. It leaves skin soft and smooth.

APPLICATIONS

- Anti-aging products
- Skin care
- Hair care
- Nail care
- Body care
- Make-up
- Bath oil
- Massage oil

Recommended dose: 0.5 - 5%

REFERENCES

BACKGROUND

Pistacia lentiscus is a native species of the central and eastern Mediterranean basin. Commonly known as “mastic tree”, since the mastic resin was harvested from trunk and barks in the past. In Sicily it has a large habitat, common in areas near woodlands and together with other species, (wild olive tree, myrtle, rosemary and many more) it defines a typical flora of rocky slopes specially on calcareous soil. Its fruits have always been employed by native people to produce an edible oil used in cooking instead of olive oil. Moreover, the oil has been employed for cuts, warts, burns and wound healing. Lentisco oil is obtained by cold pressing of the seeds.

COSMETIC PROPERTIES

In traditional medicine, Lentisco oil is effective for burn wound healing, reducing the epithelization period. This oil has good antioxidant properties, that, according to a published study, are related to the extraction method (cold pressing) and to the phenolic content. The unsaponifiable fraction contains tocopherols, plant sterols and phenolic compounds. Plant sterols and fatty acids are able to reduce trans epidermal water loss and, consequently, increase skin hydration. Moreover, phytosterols have a remarkable anti-inflammatory activity and counteract photoaging damages related to cutaneous inflammations.

APPEARANCE AND SENSORIALITY: Lentisco oil has a green color and a typical odor. It leaves skin smooth and nourished.

APPLICATIONS

- Skin repair
- Anti-aging products
- Hair care
- Cosmeceutical treatment of skin inflammatory conditions

Recommended dose: 0,5 -5%

REFERENCES

**BACKGROUND**

Tomato (Solanum lycopersicum L.) comes from Perù and the plant was diffused among Aztecs 3000 years before the conquistadores' arrival. At the beginning, it was used as an ornament because considered poisonous. Since 1700, tomato is appreciated worldwide for its unique taste and for its many different uses. The major by-products of the tomato processing industry are seeds. Tomato oil is a virgin oil obtained by cold pressing. It contains remarkable amount of carotenoids, tocopherols, vitamin C, phenolic compounds and phytosterols.

**COSMETIC PROPERTIES**

Tomato oil has a typical reddish orange colour due to the presence of carotenoids, in particular lycopene, lutein and zeaxanthin. It is an excellent antioxidant, more than pure lycopene, as reported in scientific literature, clearly underlying the presence of other antioxidants. The oil acts as an inhibitor of several free radical species, of the expression of oxidative stress-induced proteins and of the lipid peroxidation. The oil provides strong protection against UV, reducing some effects like the formation of wrinkles. Phytosterols stimulate the synthesis of elastin which has a key role in the maintenance of cutaneous tone.

It is a stable oil, able to deeply penetrate the epidermis. These features make the oil ideal for mature, dry and damaged skin and also for hair. Its low viscosity allows a quick absorption and it is recommended for oily and acne prone skin.

**APPEARANCE AND SENSORIALITY:** Tomato oil has an orange translucent hue and a mild smell. It is quickly absorbed by the skin and does not leave an oily feel.

**APPLICATIONS**

- Skin care (Facial care, Facial cleansing, Body care, Baby care)
- Antiaging formulations (anti wrinkles serum...)
- Hair care (damaged or normal hair)
- Lip care
- Sun care products (Sun protection, After-sun & Self-tanning)
- After shave products
- Cosmeceutical formulations
- Decorative cosmetics/Make-up
- Toiletries

**REFERENCES**


**Recommended dose:** 0,5 -5%
Pomegranate is a small tree cultivated for its fruits, which have been consumed worldwide for thousands of years. Its seeds were believed to have resurrecting powers by the Babylonians, to grant invincibility in the battle by the Persians and to symbolize longevity and immortality by the Chinese. The seeds, normally waste products from pomegranate processing, are of great interest because the oil obtained from the cold pressing has a particular composition. Pomegranate oil has many different properties which Make it deal for personal care products.

**BACKGROUND**

Pomegranate oil has a high content of tocopherols, phytosterols and punicic acid that is an omega-5 long chain polyunsaturated fatty acid, which has a strong lenitive action. This makes the oil suitable for sensitive skin. The oil stimulates keratinocyte proliferation, promoting the regeneration of epidermis and helps to reverse skin damage, giving a youthful aspect. According to a published study, Pomegranate oil has a strong antioxidant activity close to that of BHA and green tea. The antioxidants increase blood circulation of the scalp, promoting oxygenation and nourishment of hair.

Pomegranate oil is effective in reducing the harmful effects of UVB-mediated skin damage and also has high absorbance in the UVA and UVB ranges, which means that it can act as a SPF booster. Pomegranate oil is able to inhibit the UVB-induced MMPs, slowing down the onset of wrinkles and improving skin elasticity. Furthermore, it protects skin and hair from environmental oxidative damage, helping to maintain the scalp of subjects with dandruff problems clean. Other hair benefits are the ability to make dry and opaque hair more shiny, disentangle hair and maintain a hydrated scalp. The oil is ideal for the cosmetic treatment of acne, psoriasis, echzema.

**APPEARANCE AND SENSORIALITY:** Pomegranate oil has a light amber color and fruity smell. It is a dry oil, which is quickly absorbed and does not leave a greasy residue.

**COSMETIC PROPERTIES**

Antiaging products for young and mature skin.
- Sensitive skin products
- SPF booster
- Hair care products
- Products for skin inflammatory conditions

**APPLICATIONS**

Recommended dose: 0.5 -5%

**REFERENCES**

1. Muhammad Nadeem Aslam et al., Pomegranate as a cosmeceutical source: Pomegranate fractions promote proliferation and procollagen synthesis and inhibit matrix metalloproteinase-1 production in human skin cells, J of Etnopharmacology 103(2006) 311-318
2. Afaq, Farrukh et al., Protective effect of pomegranate-derived products on UVB-mediated damage in human reconstituted skin, Experimental Dermatology (2009), 18(6), 553-561
5. Iliana louise Pereira de Melo et al., Pomegranate seed oil (Punica Granatum L.): a sorce of punicic acid (Conjugated α-linolenic acid), J of Human Nutrition & Food Science
Chia seeds come from a flowering plant of the mint family (Labiatae) that is native to Mexico and Guatemala. History suggests that they were the favorite food of Aztecs and Mayas. The legend said that Aztec warriors got the strength to win battles from chia seeds. Currently, the popularity of this plant has increased for its high nutritional value. Chia oil (Salvia Hispanica L.) is obtained by the cold pressing of the seeds, and it is suitable for the food industry and the cosmetic field.

Background

Chia seeds are one of the richest and most precious natural sources of omega-3 in the vegetable kingdom.

Cosmetic Properties

Not common in the cosmetic field and among the cosmetic oils, it is a natural rich source of α-linolenic acid, a ω3-polyunsaturated fatty acid. Omega 3 fatty acids have a structural and functional role in skin immunomodulation and anti-inflammatory activity. Chia oil prevents the onset of cutaneous hypersensibility reactions which increase with age.

Chia oil is an effective ingredient for dermocosmetic treatment of autoimmune inflammatory pathologies like atopic eczema and psoriasis. Hence, the anti-inflammatory activity is increased by phytosterols, mainly β-sitosterol that is the most abundant.

The oil can also be used for antiaging products. Several studies have shown that omega-3 fatty acids can play a role in decreasing skin damage from UV light, reducing the onset of typical skin photoaging signs (wrinkles, spots).

Since the deficiency of α-linolenic acid is related to skin xerosis, onset of acne and fragility of cutaneous annexes, Chia oil is an ideal ingredient for hydrating/nourishing formulations and restitutive/strengthen treatments for hair and nails.

Referenced dose: 0.5 - 5%

Applications

- Cosmetic formulations for skin inflammatory conditions
- Sensitive skin products
- Dry skin formulations
- Antiaging products for mature skin
- Nail care
- Hair care

References

1. Da Silva Marineli et al., Chemical characterization and antioxidant potential oil Chilean chia seeds and oil (Salvia hispanica L.). LWT-Food Science and Technology 59 (2014) 1304-1310
Mediterranean essential oils
Thyme is native to the Mediterranean basin and Balkan countries. The name Thymus seems to derive from the ancient Egyptian tham or thm, which in Egypt designated a species of thyme used to wash corpses and for fumigation. This became the Greek thymus, which means courage, and Latin thymus. Thyme is referred to as a medication, that Benedictine monks brought from Galen and Pliny. It is assumed that thyme across the Alps around 1100 AD. It is widely used in food preparations for its organoleptic qualities and for its digestive effect. Thyme owns several pharmacological properties: it is used for asthma, cold, headache. The essential oil is obtained by steam distillation of the flowering parts.

**APPLICATIONS**
- Cosmeceutical treatment of acne
- Intimate wash and genital infections
- Anti-aging products
- Medical devices
- Antibacterial
- Oral care products
- Toiletries

**REFERENCES**
2. I. Manou et al., Evaluation of the preservative properties of Thymus vulgaris essential oil in topically applied formulations under a challenge test, J of Applied Microbiology, 1998, 84, 368-376
3. R. Giordani et al., Antifungal effect of various essential oils against Candida albicans. Potentiation of antifungal action of Amphoteric B by essential oil from Thymus vulgaris, Phytotherapy research, 18, 990-995, 2004

**COSMETIC PROPERTIES**
Thanks to the presence of p-Cymene and thymol, this essential oil is a strong antibacterial and antimycotic. In particular, it can be used for the cosmeceutical treatment of acne for its remarkable activity towards P. acnes, and also for genital infections (candidiasis). The essential oil and particularly flavonoids contained in it, protect from radical-induced damages. Moreover, thanks to its purifying, tonic and protecting properties, this essential oil can be incorporate into hygiene and skin care products such as shower gels, shampoo, deodorant, body lotions, oral care products.

In a vitro study, thymol has demonstrated that is able to inhibit the enzyme hyaluronidase, responsible of hyaluronic acid fragmentation. As a result, the oil is suitable for antiaging products.

**CHEMOTYPE - ACTIVE COMPOUNDS:** p-Cymene min. 5-10%, Thymol 35-45%

**Recommended dose:** 0,1 – 0,9%
Among the different species of *Thymus*, the genus *Thymus* Capitatus (*Coridothymus capitatus*) is the most represented. It is a perennial, herbaceous shrub, growing at different altitude, from 0 to 1000 m above sea level, in the arid and rocky areas. Traditionally, plants of genus *Thymus* are used in culinary preparations, folk medicine, perfumery and as spasmolytic, antiseptic and expectorant.

Thymus capitatus essential oil is obtained by steam distillation of the flowering parts.

**BACKGROUND**

Thymus capitatus essential oil contains a high amount of carvacrol (min.70%), which is a phenolic monoterpenoid and an isomer of thymol, that is a typical constituent of the essential oil of several Labiatae plants.

Carvacrol is a strong antibacterial agent acting on the membrane of different pathogens.

The phytocomplex has a large spectrum as antimicrobic and acts also against mycosis. In the Aromatic Index (an indication of the antimicrobial activity of essential oils) *Coridothymus Capitatus* is the first with an index of 0,873/1).

**APPLICATIONS**

- Recurrent cutaneous mycoses
- Intimate hygiene
- Bacterial folliculitis
- Onychomycosis

**CHEMOTYPE- ACTIVE COMPOUND:** Carvacrol min. 70%

**REFERENCES**

1. Antonia Nostro et al., Effects of oregano, carvacrol and thymol on *Staphylococcus aureus* and *Staphylococcus epidermidis* biofilms. Journal of Medical Microbiology (2007), 56, 519–523
The name origanum comes from the greek words oros= mountain and gamos =delight, that is "delight of mountain" because it spontaneously grows in the sunny hilly mountains.

Oregano is well-known for its therapeutic effects, and as a spice in food preparations. The essential oil is obtained by steam distillation of the aerial flowering part of the plant.

Origanum hirtum essential oil contains powerful phytochemicals: thymol and γ-terpinene. Among the several varieties of origanum, this sicilian variety is the only one which produces thymol instead of carvacrol. Origanum hirtum essential oil is an antibacterial agent which also has excellent anti-inflammatory properties. Since acne is typically worsened by bacterial infections, with the use of this oil the infection can be controlled and stopped.

Origanum hirtum essential oil is also recommended for the prevention and treatment of mycotic infections on the skin, scalp (Malassezia F.) and mucous (Candidiasis from C. albicans, C. krusei, C. parapsilosis). Since the oil has a remarkable inhibitory activity towards Malassezia F., it can be used in hair dandruff products.

In a vitro study, thymol has demonstrated that it is able to inhibit the enzyme hyaluronidase; therefore, the oil can be used in antiaging products to prevent and reduce wrinkles and improve skin turgor.

The oil is also a good natural antioxidant source thanks to the presence of γ-terpinene.

**REFERENCES**

A perennial herb, also known as apple mint, with woody rhizome, erect stem ascending, rough leaves, ovate or sub rotonde on the underside. It smells slightly minty, sweet but decisive.

This herb was often found growing in the ruins of old monasteries. The monks considered it as a way to refresh the brain and used it for curing epileptic fits. Greeks used apple mint to clean their banqueting tables and also added it to their baths to rejuvenate their bodies. Moreover, it was traditionally used as antiseptic, febrifuge, anti-fermentative, digestive, analgesic, carminative.

The essential oil is obtained by steam distillation of the flowering parts.

Several studies report that Mentha suaveolens essential oil shows a remarkable activity towards Candida A. thanks to the presence of piperitone oxide, the main constituent of this Sicilian variety. In particular, the oil alters the structure of the cell membrane of the yeast. This feature makes the oil ideal for formulations aimed at intimate hygiene.

Moreover, the oil counteracts the redox processes of Herpes Simplex 1, and consequently, it can be used in cosmetic formulations to protect lips.

CHEMOTYPE - ACTIVE COMPOUND: Piperitone oxide

Recommended dose: 0.01 – 0.3%

REFERENCES
2. Annarita Stringaro et al., Effects of Mentha suaveolens Essential Oil Alone or in Combination with Other Drugs in Candida albicans. Evidence-Based Complementary and Alternative Medicine, Volume 2014, Article ID 125904, 9 pages
3. Mijat Božović et al., Mentha suaveolens Ehrh. (Lamiaceae) Essential Oil and Its Main Constituent Piperitenone Oxide: Biological Activities and Chemistry. Molecules 2015, 20, 8605-8633
5. Civitelli L et al., In vitro inhibition of herpes simplex virus type 1 replication by Mentha suaveolens essential oil and its main component piperitenone oxide. Phytomedicine. 2014 May 15;21(6)
**BACKGROUND**

Salvia officinalis, commonly called sage, is a small evergreen plant, with woody stems, grayish leaves, and blue to purplish flowers. It is native from the Mediterranean region. The name of this plant derives from the Latin salvere, meaning “healthy”. Egyptians utilized this plant to improve fertility and Greeks considered it as a panacea. Romans used it as a stimulant. Before the invention of toothpaste, people used to rub fresh sage leaves on their teeth in order to keep them white. It is a herb commonly used to flavor meat and sauces.

The essential oil is obtained by flowering spikes of the plant.

**COSMETIC PROPERTIES**

Salvia officinalis essential oil is strongly recommended in oral care because eucalyptol is effective in keeping teeth white and breath fresh.

Eucalyptol also has antibacterial and antifungal properties, which make the oil ideal for cosmeceutical treatment of skin affections and for common vaginal affections such as candidiasis.

The oil reduces the excessive sweating in hands, feet and armpits. A recent in vitro study has shown that eucalyptol has a remarkable anti-tyrosinase activity and, consequently, the oil can be used in skin-whitening formulations.

**APPLICATIONS**

- Oral care
- Toiletries
- Fragrance products
- Hair care
- Intimate care
- Hyperhidrosis and bromhidrosis
- Skin-whitening

**REFERENCES**

1. By Badiee, Parisa et al., Comparison of Salvia officinalis L. essential oil and antifungal agents against candida species., Journal of Pharmaceutical Technology & Drug Research (2012), 1-5
The word Lavender comes from the Latin "lavare" which means to wash or purify. This plant was highly appreciated by Romans who used to put lavender in thermal baths. Moreover, they used lavender as one of the main components of perfumes and to prepare infusions and decoctions for skin and hair care.

This particular variety of lavender is a hybrid of Lavandula latifolia and Lavandula angustifolia. The essential oil is obtained by steam distillation of blooming spikes.

Lavender oil was traditionally used in wound healing and as an ingredient in formulations aimed at giving relief to skin inflammatory conditions such as psoriasis and dermatitis.

The lenitive and soothing activities are related to the monoterpenes linalool and its ester, linalyl acetate, which are mainly used as fragrance component in toiletries.

An in vitro study has also demonstrated that these compounds are responsible for the antioxidant properties of this essential oil. The same study shows that different types of lavender are able to inhibit the hyaluronidase activity making the oil ideal to counteract premature signs of aging like wrinkles and loss of tone.


cosmetic properties

- Wound healing
- Anti-aging products
- Cosmeceutical treatment of skin inflammatory conditions
- Skin care
- Hair care
- Toiletries

Applications

Chemotypes - Active Compounds: Linalool min. 35% - Linalyl acetate min. 7%

Recommended dose: 0.1 – 1%

References

Lavandin Grosso Essential Oil

Lavandin grosso essential oil is a hybrid variety of lavender, hence the vulgar name lavandin comes from. It was developed in the 18th century and cultivated to satisfy the growing request of lavender essential oil.

At the beginning it was used only as perfume to produce soaps and hygiene products.

The volatile oil is obtained by steam distillation of the flowering tops of the Lavender hybrid grosso.

**BACKGROUND**

**COSMETIC PROPERTIES**

Lavandin grosso essential oil, linalool chemotype, owns a wide range of applications. It exerts a good anti-inflammatory activity, making the oil suitable for cutaneous affections such as acne or dermatitis and for mucosal inflammations.

An in vitro study reports that this oil has a good inhibiting activity toward the hyaluronidase and this suggests its use in anti-aging products.

It also improves blood circulation and stimulates keratinocyte proliferation, promoting the regeneration of epidermis. This activity lets to ameliorate the aspect of stretch marks, surgical marks or scars related to acne. Moreover, the oil has wound-healing and antimicrobial activities.

**APPLICATIONS**

- Skin care
- Hair care
- Cosmeceutical treatment of cutaneous inflammatory conditions
- Toiletries
- Intimate care

**CHEMOTYPE - ACTIVE COMPOUNDS:** Linalool min. 30% - Eucalyptol min. 7%

**REFERENCES**


Rosmarinus officinalis L., botanical name for rosemary, belongs to the Lamiaceae family. It is a pleasant-smelling perennial shrub growing mainly in the area around the Mediterranean sea, particularly in Sicily and Sardinia. It is widely used in traditional medicine and as flavoring and spicy agent in several culinary preparations.

The essential oil is obtained by steam distillation of the aerial parts of the plant in the flowering period.

Rosmarinus officinalis oil has a lot of cosmetic applications mainly related to the hair care. It is able to enhance micro capillary perfusion of the scalp and also promote hair growth. Moreover, it increases the lymphatic drainage, so it can be used in cosmetic treatments aimed at counteract the orange peel appearance of the skin.

The oil shows remarkable antibacterial activity, related to its chemotype, eucalyptol, that makes it ideal for mouthwashes. It helps in removing bad breath, oral bacteria and also prevents gingivitis, cavities, plaque build-up. It also owns antimycotic properties.

For its anti-inflammatory effects, Rosmarinus officinalis essential oil can be added in formulations to ameliorate acne, dermatitis and psoriasis conditions. A recent in vitro study has shown that eucalyptol has a remarkable anti-tyrosinase activity and, consequently, the oil can be used in skin-whitening formulations.

**CHEMOTYPE-ACTIVE COMPOUND:**

- **Eucalyptol (1,8-cineole) min. 30%**

*Recommended dose: 0,1 – 1,5%*

**REFERENCES**

Citrus reticulata plant belongs to the Rutaceae family. The tree produces a particular fruit called mandarin, whose pulp is made up of several slices which are full of juice. This citrus specie comes from tropical area in Asia. It thinks, that the name is related to the clothes that Mandarins, governors of China, wear. The cultivation was introduced in Europe in the 19th century. The essential oil can obtained by cold pressing or steam distillation (Peratoner variety) of the peel.

As other citrus species, Citrus reticulata oil has tyrosinase-inhibitor activity and can be used in skin whitening products. This oil promotes keratinocytes proliferation and, as a result, helps to ameliorate signs of acne, scars and stretch marks. It also owns a soothing effect that is useful for reducing redness. Furthermore, like other citrus essential oil, mandarin oil has a purifying and sebum normalizing activities that make it suitable for oily-prone skin.

Mandarin oil improves blood and lymphatic circulation, then it can be used for products aimed at counteracting the orange peel appearance of the skin. Citrus reticulata essential oil can be used as a fragrance component in toiletries.

APPLICATIONS

- Skin whitening
- Cosmeceutical treatment of acne
- Oily and acne-prone skin products
- Cellulite
- Skin care
- Toiletries

CHEMOTYPE – ACTIVE COMPOUND: Limonene

Recommended dose: 0,1 – 1%

REFERENCES

Citrus sinensis oil is obtained by the cold pressing of orange peel. Citrus sinensis belongs to the Rutaceae family and comes from China. It is cultivated in south Italy since the IX-X century, when Arabs introduced it. Citrus sinensis, commonly called sweet orange, represents the most known vegetal species in the Mediterranean area and the citrus species most cultivated in the world.

**BACKGROUND**

This oil possesses a strong anti-tyrosinase activity that makes it ideal for topical formulations aimed at counteracting hyperpigmentation related to aging or cutaneous disorders. It exhibits a strong radical scavenging activity and, consequently, it can be used in anti-aging products.

It is a good ingredient for the cosmeceutical treatment of cellulite and also it stimulates collagen synthesis in the skin. Citrus sinensis oil is also suitable for hair care.

**APPLICATIONS**

- Skin-whitening products
- Anti-aging products
- Hair care
- Cellulite

**APPLICATIONS CHEMOTYPE - ACTIVE COMPOUND**: limonene

**REFERENCES**

CITRUS LIMON ESSENTIAL Oil

Lemon essential oil is obtained by the fruit peel of Citrus Medica limonum, an evergreen tree belonging to the Rutaceae family. It is mainly made up of monoterpenoid hydrocarbons (limonene), aldehydes, alcohols and small amounts of sesquiterpenes and coumarins.

Ancient Greeks named lemons “apple of Media”, because they came from Media, a country not far from Persia. At that time, they were only used to put scent on clothes and were not known the therapeutic properties.

BACKGROUND

Ancient greeks named lemons “apple of Media”, because they came from Media, a country not far from Persia. At that time, they were only used to put scent on clothes and were not known the therapeutic properties.

COSMETIC PROPERTIES

Lemon Oil has several cosmetic applications. It has dermopurifying, sebum-normalizing, astringent and antimicrobial properties that make it ideal for impure, oily and acne-prone skin. Lemon oil has a distinctly refreshing aroma, which makes it a good ingredient for perfumes. It also possesses skin-tightening and toning effects. Lemon essential oil is able to control free radical-induced lipid peroxidation preventing tissue damage in skin and exhibits tyrosinase inhibitory activity related to the radical scavenger property.

It is suitable for reducing the appearance of blemishes and counteracting the orange peel appearance of the skin, thanks to its action on microcirculation. Moreover, it shows penetration enhancing ability, so it can help other functional ingredients to deeply penetrate the epidermis.

APPLICATIONS

- Skin care (Facial care, Facial cleansing, Body care)
- Hair care
- Skint whitening
- Oily and acne prone skin products
- Toiletries

CHEMOTYPE-ACTIVE COMPOUND: Limonene

Recommended dose: 0.05 – 0.5%

REFERENCES

THE MEDITERRANEAN IS OUR INSPIRATION

NATURAL INGREDIENTS FOR COSMETIC AND NUTRACEUTICAL APPLICATIONS

SKIN MOON®
TESTED SKIN-LIGHTENING EFFECT FROM PLANT EXTRACTS

OPUNTIA BIOCOMPLEX SH
OPUNTIA POLYSACCHARIDES FOR SKIN MOISTURIZING AND REPAIR

SKIN SAVE®
THE POWER OF MEDITERRANEAN EXTRACTS FOR SENSITIVE SKIN

OLEA-HT 10
TO PREVENT THE SIGNS OF PHOTOAGING ON YOUR SKIN

RENEGRAPE®
THE ANCIENT TRADITION FOR A SAFE SKIN RENEWAL

FLAVOSLIM™
TO IMPROVE CELLULITE SKIN APPEARANCE, THE LIPOLYTIC EFFECT OF BERGAMOT FLAVONOIDS

MUCOSAVE® CG
TOPICAL ACTIVE PROTECTION OF SENSITIVE MUCOSAE
WHAT'S THIS?
A QR code is a special barcode, when scanned, it pushes you to web site. To get started, download one of these free apps from your mobile app store:

**ANDROID**
Barcode Scanner
or RedLaser

**IPHONE**
QR Reader
or RedLaser

**BLACKBERRY**
QR Code Scanner
or Code Muncher

Or digit in the address bar of your browser the following link:
http://www.bionap.com/

---

Please note this documentation is available for various countries all over the world and hence it may contain statements or product classification not applicable to your county. The claims made are in reference to ingredients only, hence they do not refer to finished products.

---

REV. MAR 2017