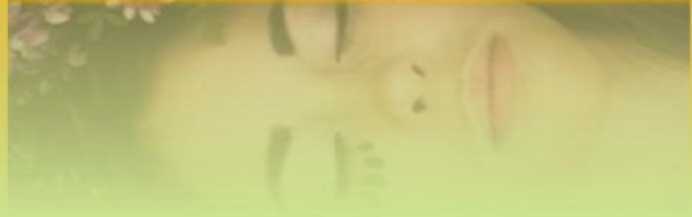


Raw Materials Used for Preparing Natural Cosmetics

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All human beings want to look beautiful, so they have been using different types of materials, from time immemorial, to improve their looks.

Originally, cosmetics were associated with religious practices. It is true especially in the case of old civilizations like the Indian, Chinese, Egyptian and Greek civilizations.

The practice of ubtan - the application of a paste of flour, turmeric and vegetable oil before marriage - is still practiced in India. Kumkum is applied by Hindu married women.



- ▶ In the past, all cosmetics were made at home.
- ▶ Natural materials like aromatic materials, spices, herbs, resins, dyes, fats, oils, perfumes were used.
- ▶ In Egypt, high priests were often recognized as medical practitioners, and over time, everything related to health and body care came to be associated with medicine
- ▶ Recently, the trend of going back to the roots, simple components and non-invasive procedures has been popular in the cosmetics industry. It is the reason for the sudden interest in raw materials obtained directly from nature and used to produce **natural cosmetics**

What are natural cosmetics? What can we find in their composition?

Natural cosmetics are products that contain **only natural raw materials** - mineral resources and ingredients of plant or animal origin.

They should be obtained as a result of such **processes** as:

- ▶ filtration
- ▶ extraction,
- ▶ drying
- ▶ distillation
- ▶ pressing
- ▶ milling
- ▶ lyophilization and sieving.

Obtaining natural raw materials with the use of the aforementioned physical methods, which **process the material to a small extent**, allows to preserve the nutritional values, vitamins and beneficial substances found in the raw materials.

- ▶ Ingredients of animal origin can be used to produce natural cosmetics only when doing so is not harmful to the health or life of animals.
- ▶ Such raw materials are, among others, honey, propolis(صمغ النحل) lanolin(دهن الصوف) and milk. In the production of natural cosmetics, it is also allowed to use cosmetic raw materials obtained in **biotechnological processes**, i.e. microbiological or enzymatic. Hyaluronic acid, among others, is obtained this way



Essential oil

is a product, which is extracted from the bark, flowers, leaves, roots, stems or other parts of a plant, usually by means of water or steam distillation. The name implies that a plant's true essence is contained in a given product. Hence, the liquid is highly concentrated. They usually are transparent or, in some cases, yellow or amber.

Mineral oil

is a product extracted from petroleum distillates, which are mineral sources, hence the name, so it is not a natural oil. The liquid is odorless and colorless. It is also pretty inexpensive. It is also known as liquid petroleum, liquid paraffin, white oil, and others.

Types of Raw Material used in Natural Cosmetics

OILS

Oils are derived from vegetable and mineral sources, and are used in cosmetics. Examples of vegetable oils are almond oil, arachis oil, castor oil, olive oil and coconut oil. Examples of mineral oils are light and heavy paraffin

Oil	Source	Use
Almond Oil:	It is a fixed oil obtained by expressing the seeds of <i>Prunus amygdalus</i>	It has an emollient action, so it is used in the preparation of creams and lotions.
Arachis oil	This is also a fixed oil obtained from the seeds of the <i>Arachis hypogea</i>	It is used in the preparation of hair oils
Castor	Oil is obtained from the seeds of <i>Ricinus communis</i>	It is used as an emollient, in the preparation of lipsticks, hair oils, creams and lotions.
Olive	This oil is obtained from the fruit of the <i>Olea europea</i>	It is used in the manufacturing of creams, lotions and bath oils.
Coconut	This oil is obtained from the dried solid part of the endosperm of the coconut - <i>Cocos nucifera</i>	For skin hydration and protection its versatile for skin and body care contains vit F (linoleic acid retains moisture)
Tea tree oil	comes from the leaves of Melaleuca alternifolia , a small tree native to Queensland and New South Wales, Australia	Tea tree oil has been used for centuries as a natural antiseptic agent and can treat minor cuts, wounds, infections, insect bites and is known to be a strong immune booster. It's especially great for treating hair and skin infections such as lice or other bacterial/fungal infections
Rose	It is obtained by the steam distillation process from the flower petals of <i>Rosmarinas</i>	Used in perfume manufacture
Jasmine	Obtained from the flowers of <i>Jasminum grandiflorum</i>	Used in perfume manufacture
Lavender	It is obtained from the flowers and stalk of <i>lavandula officinalis</i>	Used in perfume manufacture
Cinnamon	Cinnamon oil is obtained from the different parts of the cinnamon tree - its leaves, bark and roots	The oil has a warm, spicy and sweet character.



**Arachis
Oil**



**Almond
oil**



**Castor
oil**





Olive oil



coconut oil



Cacao oil

Waxes:

Waxes are solid slightly shiny substances made of fat or oil melt when heated.

They are esters resulting from the condensation of high molecular straight chain fatty acids with high molecular straight chain monohydric alcohol of the methanol series. They are used in cosmetics as a base, along with oils and fats.

Example:

Lipsticks.

Wax	Uses
Beeswax It is a purified wax separated from the honeycomb of bees, <i>Apis mellifera</i>	Used in preparing cream ointment and lotion
Carnuba wax This is obtained from the leaves of the Brazilian wax palm, <i>Copernicia cerifera</i>	
Spermacetiis a solid wax obtained from the head, blubber and ear case of the sperm whale, <i>Physeter colodon</i> ,	



Carnuba Wax



Bees Wax



Spermaceti

Colors

▶ (i) Cochineal:

Cochineal is a red dyestuff derived from the dried female insect, *Dactilopius coccus*, which belongs to the Coccidae family. Carminic acid is the main colouring constituent in cochineal..

▶ (ii) Saffron:

It consists of the stigmas and tops of the styles of the plant, *Crocus sativa*, which belongs to the Iridaceae family. It is a perennial plant grown in Jammu and Kashmir in India. Saffron powder is yellowish and is easily soluble in water, so it is used as a flavouring and colouring agent in food preparations.

▶ (iii) Chlorophyll:

It is the natural green pigment, found abundantly in nature. It is the component that is responsible for photosynthesis.



Chlorophyll

Saffron

What substances cannot be used in natural cosmetics?

- ▶ For the production of natural cosmetics one **shall not use** mineral oils, paraffins, petrolatum, synthetic dyes, synthetic fragrances, synthetic preservatives, i.e. parabens or formaldehydes, as well as propylene glycol (PPG), silicones, SLS and others.
- ▶ The ingredients of natural cosmetics **have to be free from raw materials originating from genetically modified plants** as well as from raw materials from dead animals or obtained in the manner harmful for them.
- ▶ A natural cosmetic product should not contain synthetic substances; although some certifying organizations consider the product to be natural if it contains **less than 5% of synthetic substances**

Other components of Natural Cosmetics

▶ Antioxidants - a fight against skin aging

Antioxidants' action is based on **reducing the amount of free radicals accelerating skin aging processes**. These substances limit the growth of microorganisms and protect the cosmetic ingredients from decomposition. The natural antioxidants are vitamin C and E. Polyphenols and flavonoids found in grape seeds, rosemary and citrus are also effective. An additional advantage of these substances is **protection of the cosmetic product from external factors**, which extends its shelf life

▶ Emulsifiers - creating a permanent emulsion

cosmetics, is good for the skin. Another natural substance used as an emulsifier Due to emulsifiers, it is possible to create a permanent emulsion, that is, to combine two phases - water and oil. They give the right consistency and stabilize the cosmetic product. A popular natural emulsifier is GSC (Glyceryl Stearate Citrate) which, in addition to preventing the stratification of phases of in cosmetics is also beeswax.

▶ **Hydrolates - plant based waters**

- ▶ Hydrolates are distillates produced as by-products in the process of essential oils manufacture. Their properties depend on the plant which they were obtained from. However, their common features are the ability of **toning the skin, improving its condition and soothing irritations**. Hydrolates are also used as so-called **water phase** in soaps, creams and balms.

Humectants - long-lasting moisturizing

- ▶ Humectants are substances that are responsible for binding water in both the cosmetic preparation and the skin. Due to them, moisturization is preserved for a long time, wrinkles are smoothed out and the skin becomes taut, supple and elastic. Natural humectants are aloe, honey, glycerol and hyaluronic acid



Exfoliants - exfoliation of dead skin cells

Exfoliants are ingredients exfoliating the epidermis, and they are commonly referred to as scrubs. They **remove the outer layer of dead skin cells, stimulating new cells to grow.** In addition, they oxygenate and thoroughly cleanse the skin surface.

enzymatic agents that dissolve dead cells. In natural cosmetics, hydroxylic acids are used as chemical exfoliants (**AHA acids**). They are found, among others, in milk, fruit and sugar cane, and these are substances such as: **malic, citric and mandelic acid**

Natural exfoliants can work **mechanically or chemically.** The first type are **abrasive substances**, i.e. ground seeds or inorganic salts

Sugar Black berry scrub



- ▶ Wonderful power of vitamins
- ▶ Vitamins are organic chemical compounds that have a positive effect on the condition of the skin. Vitamin C, A and E are most commonly used in cosmetics. They effectively soothe skin irritations, protect and regulate its density and restore firmness.

Analysis of the composition of cosmetics - a guarantee of a good choice

When buying products for hygiene and body care, remember how **important the origin of raw materials** used in cosmetics is. Marketing message often does not go hand in hand with the real effect of the product, which instead of improving the condition of the skin - destroys it. This applies not only to natural cosmetics, but to all cosmetic preparations available on the market. Taking into account the **composition of the cosmetic** visible on the label, and not its brand, should become a routine that will help you properly care for your skin.



The *equipment* you need
for making natural skincare
products at home



Thank You
For Your
Attention