

WhiteSense™

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INTRODUCTION

WHITESENSE™ is a plant based cosmetic product developed to offer SENSATIONS on the skin. These sensations have an influence on user's mood providing a state of well being.

WHITESENSE™ offers the sensation of softness and velvety touch of the petals of white flowers, Pale Rose, Jasmine, and Daisy. The floral concept on the skin results in soft, smooth skin.

Provital has developed this product to give added value to the final products it is included in, giving the consumer a sensory experience beyond the benefits of the other ingredients contained in the cosmetic.

The **Sense Range** product line pursues improving consumers' well-being by creating sensations on the skin.

WHITESENSE™ is a floral complex from Pale Rose (*Rosa centifolia* L.), Jasmine (*Jasminum officinale* L.) and Daisy (*Bellis perennis* L.).

DESCRIPTION

Sensation

According to The American Heritage Dictionary, the term sensation (from the latin sensationis), is defined as

- The impression things produce through our senses
- A surprise effect, usually pleasant, produced by something amongst a group of people
- A hunch or premonition that something is about to occur

Our senses provide us with vital information that allows us to relate to safely and independently with the world that surrounds us. This is done through feelings, which are used as the mechanism by our body to process all the stimuli it receives: light, sounds, textures, tastes, hot or cold, pains, smells, even caresses, feeling tickles and kisses.

Touch is the sense responsible for perceiving the stimuli that include contact and pressure, as well as those relating temperature and pain. Our sensory organ is the skin. The majority of feelings are perceived through specialised nerve endings on the skin, which are called touch receptors. These receptors are located on the epidermis, which is the outermost layer of the skin, and they transport feelings towards the brain through nerve fibres.

In Cosmetics, we refer to the sensation or effect caused by cosmetics when they are applied to the skin, through touch, and to a lesser extent smell, the pleasurable "surprise" effects they cause. Touch allows us to feel the texture and smell allows us to perceive the aroma.

WHITESENSE™ gives cosmetic products with a feeling of softness on the skin and velvety to the touch. This overall result is global homogeneous look and improvement in the skin, eliminating roughness and dryness of stratum corneum.

BOTANY AND CHEMISTRY



Common rose corresponds to the species name *Rosa centifolia* L., belonging to family Rosaceae. It is also called Pale rose, Rosier cent feuilles, Cabbage Rose and Provence Rose.

The flower is large, perfumed, with a large number of petals of different colours (white, pink or purple). The fruit consists of numerous hairy achenes, located inside a red, cone shaped fleshy receptacle. The rose shrub reaches between 0.50-1m. tall. The branches are covered by numerous thorns; the petioles and flower-stalks do not have thorns, but are covered with glandular hairs. The leaves have between five and seven elliptical glandular leaflets.



Jasmine is the species *Jasminum officinale* L. = *Jasminum grandiflorum* L. = *Jasminum officinale* var. *grandiflorum* (L.) Baley, from family Oleaceae.

The flowers are arranged in groups of one to five at the tip of branches. The flower is comprised of a tubular calyx with five to eight sepals, a cylindrical corolla that broadens toward the end, two stamens enclosed in the corolla tube and a two celled ovary. These flowers are heavily perfumed, they bloom since June to October and, given that they only appear on the youngest stalks, the plant should only be pruned in autumn. The fruit is a bright black berry. Jasmine is a climbing perennial shrub. The leaves are opposite, pinnate, dark green and have three pairs plus a terminal pointed leaflets.



English Daisy is the species *Bellis perennis* L., from family Asteraceae.

Perennial plant with a cylindrical rhizome, with ground level leaves that all sprout from the same point on the stalk, in a radial configuration. There are a large number of leaves, they are serrate and spatulate. A 15 cm stalk emerges from the centre of the plant, which holds what is commonly called the daisy, but is nothing more than a type of inflorescence known as a capitulum, with yellow central flowers, surrounded by white outer flowers.

This plant flowers in early spring, and the flowering may continue throughout the summer.

Rose is native to the Caucasus. It is cultivated in the temperate regions of the Mediterranean coast: Syria, Lebanon, North of Africa (Morocco) and the Grasse region (France). Roses are harvested before blooming to prevent petals detaching from the flower.

Jasmine is native to China, north of India, Pakistan and north-east Himalayas. This plant is completely adapted to the central and southern regions of Europe. Jasmine flowers are collected during the dawn, one to one, manually, to prevent withering.

Daisy is native to South Europe and North Africa. It grows in every climate; however, this plant cannot endure heavy frosts.

Chemical composition

Major components of Rose petals are essential oils and tannins. Rose essential oil is a highly complex mixture of more than 100 different components with phenylethanol being the most abundant one. The rest of components are: monoterpenes (α - and β -pinene, myrcene, geraniol, citronelol, nerol and derivative acetates, linalol, menthol, citral, rosafurane), sesquiterpenes (farnesol), phenol acids and derivative esters (eugenol, eugenol acetate) and aldehydes. The tannins in these flowers are the gallic acid and its derivatives. Further components are amino acids, mucilage and anthocyanosides.



Jasmine chemical composition is mainly characterized by the essential oil content. Components include: alcohols (linalol, nerol, farnesol, terpineol), ketones (Jasmone, trans-methyl jasmonate, jasmonic acid, jasmolactone, methyl dihydrojasmonate, cis- and trans-ethyljasmonate), other alcohols, esters and ketones (benzylacetate, benzyl alcohol, phenylacetic acid, methyl heptanone) and aromatic compounds (eugenol, eugenyl acetate). Further active compounds in jasmine are: phenols (p-cresol) and alkaloids (indol-methyl-anthranilate).

Daisy components are: saponosides, flavonoids and anthocyanosides. Saponosides in this plant include: virgaureasaponoside. Flavonoids isolated from the flower include: apigenin, quercetin, kaempferol, isorhamnetine and the derivative glycosides. Anthocyanosides include cyanin and 3-malonylglucuronyl glucosides. Further active principles are: essential oil traces, tannins, organic acids, polyacetylene derivatives, bitter principles, resin, mucilage and beta-sitosterol.

TRADITIONAL USES

Popular medicinal uses of rose flowers include treatments for pain, diarrhoea, chronic gastritis, hepatitis, trauma and blood disorders. Of all flowers, the rose has been preferred by perfume lovers for more than three thousand years. Homer described the oil that Aphrodite used to anoint Hector's body, as made from soaking rose petals in olive oil. The Islamic perfume industry was the first to distil the petals of the Damascus rose. The Persian city of Shiraz was known in the 8th century for its rose water, exported up to the 17th century to Europe, India and China. In addition to its culinary and pharmaceutical uses, rose water was much appreciated by Western perfumers, from the Renaissance to the 19th century.

In cuisine, the flavour of the rose is as delicate and exquisite as its perfume. In Chinese gastronomy there is a dish of whole stewed roses. The Greeks and Romans used rose petals in meals and desserts. In Eastern Mediterranean and in old English cooking and from the time of the Tudors, there are exquisite rose flavoured desserts and dishes.

Jasmine is popularly known for having properties to treat stretch marks, as well as for treating mature skin, helping to prevent wrinkles, firming and softening. As a medicinal plant, it has traditionally been considered an aphrodisiac, calmative, antiseptic, antispasmodic, stimulant, antidepressant, emollient, rejuvenating and relaxing. The roots and leaves of some jasmine species have been used in folk medicine as anthelmintic, against ringworm and tapeworm. Although its use today in the Western world is very rare, syrup made of its flowers used to be used to treat cough and an infusion of its leaves was used to rinse irritated eyes and wounds.

English Daisies are popularly used as a natural tonic to lower fever, eliminate toxins from the body and as an expectorant. In case of high fever, in addition to infusions, compresses can be applied to the forehead. It is also curative, meaning that it heals wounds and heals contusions, and therefore can be used as a compress to treat skin injuries and reduce inflammation. The infusion also is used to stimulate the appetite and to purify the blood, because of its purifying and diuretic properties.

COSMETIC APPLICATIONS AND PROPERTIES

Smoothness effect

The concept of suave=smoothness, from the latin suavis, means something smooth and soft to the touch, in contrast to something coarse and rough. It also refers to something sweet and pleasant to the senses.

Cosmetics can soften the skin in two ways, either through a filmogenic or an emollient effect.

The filmogenic effect occurs when certain "macro molecules" are deposited on the surface of the epidermis, resulting in soft, delicate skin that feels velvety to the touch. This filmogenic effect exerts two complementary actions, retaining water, and therefore improving moisturizing levels, and improving the skin's barrier property.

The emollient agents are substances that make the skin softer, eventually giving the skin occlusion and elasticity. These substances should correct coarse and roughness of the skin's surface. The user has the final sensation that after applying the emollient, the skin acquires a smooth, uniform feel.

To achieve the desired softness, it is important that the product have good extensibility and not be tacky (tacking effect). Extensibility is the cosmetic's ability to disperse and distribute evenly over the skin. The ease of application of the cosmetic depends on this property, as does finally, acceptance by the end consumer.

Action	Cosmetic application	Cosmetic formulas
Skin conditioner	Moisturizing	Body butter
Hair conditioner	Hair conditioning	Body milk
		Hair mask

RECOMMENDED DOSE

The recommended dose is between 2% and 5%.

TOXICOLOGICAL PROFILE

WHITESENSE™ has been evaluated on the basis to available toxicological information, based on safety assays and bibliographical data. These data support lead to the conclusion that the use of **WHITESENSE™**, under normal conditions of cosmetic use, and at the recommended use concentrations, involves no risk for consumers.

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