



IFF

LUCASMEYER
COSMETICS

ACTIVE
INGREDIENTS

TECHNICAL FILE

SUPREM[™] WP

NOURISHING & MOISTURIZING VEGETABLES MILKS

For skin and hair care

-

High level of phospholipids



SUMMARY

ORIGIN	Milky emulsion obtained with vegetable oil or macerate and phospholipids
COSMETIC PROPERTIES	<ul style="list-style-type: none"> • Moisturizing • Nutritive • Emollient • Softening • Pampering
SKIN & HAIR BENEFITS / POTENTIAL CLAIMS	<ul style="list-style-type: none"> • Nourishes hair and skin • Enhanced soft skin feel
APPLICATIONS	<ul style="list-style-type: none"> • Rinse-off skin care: shower gel, bath gel • Face & body skin care products: cream, lotion, body milk... • Rinse-off hair care: shampoos, after-shampoos, masks, etc. • Leave-on hair products: serum, balm • Baby care
RECOMMENDED DOSAGE	0.5 - 15%
USAGE PH RANGE	4.0 - 8.0
INCORPORATION	At the end of the formulation (<40°C)
INCOMPATIBILITIES	Not known

MILK: AN ANCESTRAL SECRET OF BEAUTY

The cosmetic use of milk in beauty gestural goes back centuries. The most famous user was Cleopatra (queen of Ancient Egypt) who preserved the youthfulness and the beauty of her skin with daily baths of donkey milk.

Poppaea, second wife of Roman emperor Nero, used it also as an anti-aging product. And later, Pauline, Napoleon's sister, was an addict of this miraculous product.

Since then, different types of milk (donkey, goat, mare, cow, etc.) have been widely used in cosmetic products for their moisturizing and nutritive properties. They bring essential bioelements to the skin and make it soft and supple.

The use of milk in cosmetic products is a strong marketing claim (raw ingredient, nutrition...), often placed as the main ingredient of a whole range.

SUPREM'™ WP - VEGETABLE MILKS FOR SKIN & HAIR CARE

Suprem'™ WP is a natural range of nourishing and moisturizing vegetable milky emulsions with a lipidic content close to maternal milk composition. They generate a strong interest due to the combination of milk properties with plant benefits, and for the strong marketing message they deliver.

In consumer mind, the presence of vegetable milk is attractive: it refers to the health benefits of maternal milks and conveys an image of softness, comfort, nutrition, exoticism... Compared to a simple oil or extract, the milk is a more pleasant form of plant derivatives that combines efficacy and sensoriality.

Composition

Composed of 5% vegetable oil or macerate emulsified with 2% phospholipids, the Suprem'™ WP line combines the **well-known properties derived from traditional use of plants** with the **wonderful sensorial properties of phospholipids**.

- Main element of the cellular membrane composition, phospholipids have a particular affinity with the skin. Consequently, they form a film at the surface of the skin and strengthen the cutaneous barrier involved in the maintenance of skin hydration. They also provide the "phospholipid touch" characterized by a cool, soft and non-greasy skin feel, improving the sensoriality of the texture.
- These actions are maximized with the additional specific properties of the selected oil or oily macerate, according to the literature.

Ultra fluid, the milky texture of all Suprem'™ WP references provide nutritive, moisturizing, emollient and softening properties to any kind of skin and hair care formulations.

Depending of the reference, Suprem'™ WP offers different claims and stories, according to the plant origin and/or image.

Recommended use

- Used in hair care products, Suprem™ WP acts as a nutritive and softening care to make hair healthy, soft and shiny.
- Used in skin care products, Suprem™ WP nourishes, moisturizes and pampers face and body skin with a nice skin feel. Particularly adapted to baby care and sensitive care, Suprem™ WP provides softness and comfort for an optimal pleasure on application.
- Used in rinse-off toiletries, Suprem™ WP offers comfort during rinsing and leaves soft skin after drying.

Suitable for all skin care and hair care products, the Suprem™ WP line generates strong marketing stories evoking skin nutrition, comfort, softness, and stimulates the imagination depending on the chosen plant.

References

9 standard versions are available with different properties and origin:

Reference	Properties	Origin
Argan	Anti-aging, softening,healing, hair nutrition	Morocco
Cotton	Softening, soothing, anti-aging	India
Jasmine	Relaxing, well-being	Asia
Fig	Anti-aging, softening, soothing	Mediterranean countries
Olive	Regenerating, anti-aging, hair nutrition	Mediterranean countries
Orange blossom	Soothing, relaxing, softening	Middle-East
Shea	Regenerating, healing, soothing, protective Hair nutrition	Burkina Faso (Africa)
Sweet almonds	Softening, soothing, anti-aging	Mediterranean countries
Vanilla	Anti-aging, softening, relaxing	Madagascar

Suprem™ WP tailor-made references

Any reference development can be studied under specific conditions.

Some ideas...

Acacia, Apricot, Avocado, Basil, Cactus, Chamomile, Cinnamon, Coco, Cocoa, Coffee, Grape, Hazelnut, Iris, Kiwi, Lime tree, Linden, Magnolia, Mallow, Mango, Oat, Orchid, Palm, Papaya, Plum, Poppy, Raspberry, Rice, Rose, Rosemary, Three cereals, Tomato, Wheat...

SUPREM™ WP SWEET ALMOND (amande douce)



Sweet almond is the fruit of the almond tree (*Prunus amygdalus dulcis*), a species native to the Middle East and South Asia, belonging to the *Rosaceae* family. Nowadays, it is widely cultivated in Mediterranean countries.

Sweet almond oil, derived from the dried kernels of the almond fruit, is rich in fatty acids¹ including a high level of oleic acid (62-86%) and of linoleic acid (20-30%). Also rich in vitamins, sweet almond oil contains mainly vitamin A which contributes to the skin elasticity improvement and vitamin E, an antioxidant that accelerates the repairing of cell and DNA damage, and promotes healthy skin.

Already used in Ancient Egypt by pharaohs, sweet almond oil has been commonly used since the Antiquity for its moisturizing and softening properties. The oil has been widely used in traditional medicine to treat skin disorders, such as skin dryness, or as a soothing agent for inflammatory skin.^{2,3}

Particularly adapted for sensitive, delicate and very dry skin, almond oil has nourishing and great emollient properties that make it excellent to relieve itching skin, dermatosis and psoriasis, and may help prevent erythema.

Used in hair care, sweet almond oil adds luster and makes hair healthy, soft and shiny. It nourishes fiber and smoothes hair cuticles, making them strong and thick.

INCI name

Water (and) Prunus Amygdalus Dulcis (Sweet Almond) Oil (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate

Recommended use

- Skin care:
 - Baby skin
 - Sensitive skin
 - Irritated skin
 - Dry skin
- Hair care (all types of hair)

Bibliographic data

- 1-Jean Bruneton. Pharmacognosie, Phytochimie, Plantes médicinales, 156-57, Lavoisier, 4ème édition, 2009.
- 2-Ahmad Z. The uses and properties of almond oil. *Complement Ther Clin Pract.* 2010 Feb; 16(1):10.
- 3-Loïc Girre. Les Plantes et les médicaments, 181, éditions Delachaux et Niestlé, 2001.

SUPREM™ WP ARGAN

Argan tree (*Argania spinosa*) is a species endemic to Southwestern Morocco (North Africa), in the region of Essaouira. Argan oil is produced locally from the fruit kernels and has been used for centuries by Morocco women for its nutritive, cosmetic and numerous medicinal properties.



Argan oil is mainly composed of mono-unsaturated (up to 80%, mainly oleic – omega-9 – and linoleic – omega-6 – acids) and saturated (up to 20%) fatty acids¹. Exceptionally rich in vitamin E (620mg/100g), argan oil is at least three times more concentrated than most other vegetable oils. It also contains squalene, a unique and rare component that could protect against skin cancer.

Traditionally, argan oil has been well known for its cardio protective properties and is also used in the treatment of skin infections.¹

Argan oil is often referred to as a miracle product because of its extreme moisturizing and nourishing benefits for both skin and hair. It prevents stretch marks, and is a natural healing of dermatological disorders including eczema, psoriasis and scars left by acne or surgery.

Argan is also an efficient anti-aging oil thanks to its high level of vitamin E, which helps to reduce wrinkles by restoring the skin's hydro-lipid layer and by fighting free radicals. It also has cooling and soothing inflammation properties, increases the amount of nutrients and oxygen in the skin cell, and protects connective tissue.

Argan oil is a direct source of essential nutritional components to heal and restore dry, weak and damaged hair. Its unsaturated fatty acids strengthen the protein bonding structures in hair, thereby improving hair strength and healing split ends.

INCI name

Water (and) Argania Spinosa Kernel Oil (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate

Recommended use

- Skin care:
 - Atopic skin care
 - Sensitive skin care
 - Acne prone skin care
 - Mature skin care
- Anti-stretch marks (pregnancy or post-pregnancy) care
- Hair care:
 - Dry and damaged hair

Bibliographic data

1-Monfalouti HE, Guillaume D, Denhez C, Charrouf Z. Therapeutic potential of argan oil: a review. *J Pharm Pharmacol*. 2010 Dec;62(12):1669-75.

SUPREM™ WP JASMINE (Jasmin)

Native to Mediterranean countries and widely cultivated for the characteristic fragrance of its flowers, jasmine (*Jasminum officinalis*) is an evergreen and fragile climbing shrub belonging to the *Oleaceae* family.

The term “jasmine” has been derived from “yasmin”, a Persian word used to refer to something that has the power to evoke carnal desires.



For several centuries, jasmine flower has been considered in Orient as the symbol of beauty and femininity. In Tunisia, the flower became the emblem of the country: offering it is a proof of love...

The fresh jasmine flowers contain a high amount of volatile molecules which confers jasmine aphrodisiac properties. These substances can also act on the improvement of digestion, toxin elimination, loss of weight; they help the acceleration of metabolism and improve blood circulation. They are also known to have relaxing and anti-depressive properties.

These properties are found in the popular jasmine tea in China, for instance.

Jasmine flowers are also widely cultivated to extract the precious essential oil for perfumery and aromatherapy.

INCI name: Water (and) Helianthus Annuus (Sunflower) Seed Oil (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate (and) Jasminum Officinale (Jasmine) Extract

Recommended use:

- Skin care:
 - Sensitive skin care
- Hair care (all types of hair)

SUPREM™ WP SHEA (Karité)



Shea butter (*Butyrospermum parkii*) is the natural solid fatty oil extracted from the nuts of the shea tree (*Vitellaria paradoxa*), commonly named “tree of life”. The name shea is derived from the African name “sil”, which means sacred. Belonging to the *Sapotaceae* family, shea trees grow in Ghana, Mali, Burkina Faso, and other Western African savannahs.

Shea butter manufactured manually by African women according to a traditional process represents about 90% of the worldwide production. It provides employment and income to hundreds of thousands of rural African village women, hence its other name “women’s gold”.

In Africa, shea butter is a traditional food oil of great importance, and is used for a variety of cosmetic, medicinal and cultural purposes. Traditional uses of shea butter include protection of the skin against dryness (during the dry season), wound healing, elimination of skin irritations, and sore muscles. It is also used by men as an aftershave, by women to prevent stretch marks during pregnancy, and on baby skin to prevent irritation.

Shea butter contains vitamins (A, D, E, and F) and a high level of essential fatty acids (oleic acid (40-60%), stearic acid (20-50%), linoleic acid (3-11%), palmitic acid (2-9%))¹ that promote cell regeneration and provide moisturizing and healing properties. It also acts as an anti-aging ingredient, leaving the skin hydrated and elastic. Due to its high level of derivatives of cinnamic acid, shea butter has anti-inflammatory properties and can treat psoriasis and eczema². As natural UV filter, these molecules also protect skin from sun.

With its intense nutritive properties, shea butter is recommended in hair care for very dry, damaged, and frizzy hair.

INCI name

Water (and) Butyrospermum Parkii (Shea) Butter (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate

Recommended use

- Skin care:
 - Dry skin care
 - Sensitive skin care
 - Sun care
 - Baby care
- Hair care:
 - Dry hair care
 - Damaged hair care
 - Frizzy hair care
 - Sun exposed hair care

Bibliographic data

1-Davrieux, F. *et al.* Near Infrared Spectroscopy for High-Throughput Characterization of Shea Tree (*Vitellaria paradoxa*) Nut Fat Profiles. *Journal of Agricultural and Food Chemistry*, 58, 7811-7819.

2-Akihisa T. *et al.* Anti-inflammatory and chemopreventive effects of triterpene cinnamates and acetates from shea fat. *J Oleo Sci.* 2010;59(6):273-80.

SUPREM™ WP FIG (Figue)



The fig is the seasonal fruit of a species of the fig tree (*Ficus carica*), from the *Moraceae* family. Native to the Middle East and western Asia, fig tree was already cultivated in ancient times, and is nowadays widely grown throughout the temperate world, both for its fruit and as an ornamental.

Besides its culinary uses, fig has been used in traditional medicine for its antipyretic and purgative properties, and has proved efficient in the treatment of inflammation and paralysis.^{1,2} Health benefits of fig can be attributed to the presence of minerals (calcium, iron, phosphorus, manganese, sodium, potassium and chlorine), vitamins (A, B1, B2), and fibers in the pulp.

Phenols, flavonoids and carotenoids (beta-carotene, lutein, lycopene) are antioxidants³ abundantly found in figs, providing excellent anti-aging effects. The presence of phytosterols gives to fig anti-inflammatory, healing and repairing properties.

Fig is therefore excellent to avoid cutaneous dryness and aging, bringing to skin softness and comfort.

INCI name

Water (and) Helianthus Annuus (Sunflower) Seed Oil (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate (and) Ficus Carica (Fig) Fruit Extract

Recommended use

- Skin care:
 - Sensitive skin care
 - Dry skin care
 - Anti-aging care
- Hair care (all types of hair)

Bibliographic data

1-Baby Joseph, S. Justin Raj. Pharmacognostic and phytochemical properties of *Ficus carica* Linn –An overview. *International Journal of PharmTech Research*. Vol. 3, No.1, pp 08-12, Jan-Mar 2011.

2-Kalaskar M.G. *et al.*, Pharmacognostic and Phytochemical Investigation of *Ficus carica* Linn. *Ethnobotanical Leaflets* 14: 599-609, 2010.

3-X-M. Yang *et al.* Antioxidant and immunity activity of water extract and crude polysaccharide from *ficus carica* L. fruit. *Plant Foods Hum Nutr.* 2009; 64:167-173.

SUPREM™ WP COTTON (Coton)



Cotton is a soft, fluffy staple fiber that grows in a boll around seeds of cotton plant (*Gossypium herbaceum*) belonging to the *Malvaceae* family.

Some Indian or American cotton species have been farmed by native population before it became a worldwide production. Nowadays, all countries having a warm or tropical temperate climate produce cotton plants.¹

Extracted from seeds, cotton oil has been used since Ancient Egypt for its medicinal properties and has been used for millenaries as a cooking oil in Africa and central Asia. It is very rich in fatty acids, mainly oleic (omega-9), palmitic, linoleic (omega-6) acids, essential for the skin because they slow the loss of water by forming a barrier on the skin's surface, having nourishing and restructuring properties. It satisfies all the needs of dry, mature or damaged skins, preserving and enhancing their elasticity. Cotton seed oil contains sterols which have a strong antioxidant activity and has emollient and regenerating properties, helping actively the cell's membrane formation, and enhances skin tonicity.

Very soft, the oil leaves a velvet and silk aspect to skin. It nourishes the skin deeply without leaving a greasy film sensation and protects damaged hair.

INCI name

Water (and) Gossypium herbaceum (cotton) seed oil (and) Lecithin (and) Polyglyceryl-3 Diiisostearate (and) Glycerin (and) Glyceryl stearate

Recommended use

- Skin care:
 - Dry skin
 - Baby skin
 - Sensitive skin
 - Mature skin
 - Damaged skin
- Hair care (all types of hair)

Bibliographic data

1-Fourasté. Plantes colorants et à fibres, p.20, avril 2005.

SUPREM'™ WP ORANGE BLOSSOM (Fleur d'oranger)

Orange blossom is a small white fragrant flower of the bitter orange tree or bigarade tree (*Citrus aurantium*) from the *Rutaceae* family. It grows in clusters which stand out starkly against the lush greenery of the orange tree, and when left on the tree, they develop into orange fruits.



For centuries, these incredibly aromatic flowers have had an important cultural significance in many communities around the world. In many cultures, orange blossoms symbolize good fortune, and are often used in ceremonies like weddings. Brides around the world have historically worn orange blossom wreaths or carried orange blossoms in their bouquets. Orange blossoms have also traditionally been used in the coffins of young women and girls in some regions of the world, symbolizing purity.

Native to Asia, orange blossom was widely used in Chinese & Arabic traditional medicines since the Middle Ages for its curative properties to minimize and prevent depression, stress and tension, and also for the treatment of insomnia or sleeplessness, helping promote calm and deep sleep.

Orange blossom contains hesperidin, a flavonoid providing a strong anti-oxidant action¹ protecting skin against free radicals, and an anti-inflammatory action² soothing skin irritation. It also has softening and moisturizing properties. Ideal for dry and sensitive skin, it rebalances epidermis.

Orange blossom is also used to extract an essential oil called neroli oil, one of the most widely used floral oils in perfumery. In aromatherapy, neroli is considered to have a soothing effect on the nervous system and to relieve tension and anxiety.

INCI name

Water (and) Helianthus Annuus (Sunflower) Seed Oil (and) Citrus Aurantium Dulcis (Orange) Flower Extract (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate

Recommended use

- Skin care:
 - Dry skin
 - Sensitive skin
 - Baby skin
- Hair care (all types of hair)

Bibliographic data

1-Hirata A, Murakami Y, Shoji M, Kadoma Y, Fujisawa S (2005). Kinetics of radical-scavenging activity of hesperetin and hesperidin and their inhibitory activity on COX-2 expression. *Anticancer Res.* 25 (5): 3367–74.

2-Emim JA, Oliveira AB, Lapa AJ. Pharmacological evaluation of the anti-inflammatory activity of a citrus bioflavonoid, hesperidin, and the isoflavonoids, dauricin and clausquinone, in rats and mice. *J. Pharm. Pharmacol.* 1994 Feb;46(2):118-22.

SUPREM[™] WP OLIVE

Olive is the fruit of the olive tree (*Olea europaea*), a species belonging to the *Oleaceae* family, cultivated in Mediterranean regions and famous for its healthy and longevity virtue.



Extracted from olive pits, olive oil has different compositions depending on the region, altitude, time of harvest, and extraction process. Widely used in food, olive oil is known for its protective properties against cardiovascular diseases¹, and is the base of the traditional Cretan diet assuring good health and longevity to the Cretan people.

The historical use of olive oil in cosmetic products goes several centuries back. Called “liquid gold” by Homer, olive oil was commonly used in skin care by Phoenicians, Egyptians, Romans and Greeks, and as a nutritive care for hair. Since last century, it is the main component in the manufacturing of the traditional “Savon de Marseille” (Marseille soap).

Olive oil is composed mainly of mono-saturated fatty acids (oleic acid) and poly-saturated fatty acids (linoleic and linolenic acids). They assure the hydration of skin, making it suppler and firmer. Oleic acid is also a good skin cell regenerator and avoids the apparition of wrinkles. It helps to restore skin elasticity and protects skin from dehydration by enhancing the skin barrier function, strengthening the hydrolipidic film at the skin surface and membrane cells². Complete in vitamins (A, D, E, K), olive oil provides anti-aging benefits. Because of its many benefits for skin, olive oil is a key active ingredient against dry skin or anti-aging, providing hydration and comfort.

INCI name

Water (and) Olea Europaea (olive) Fruit Oil (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate

Recommended use

- Skin care:
 - Anti-aging care
 - Sensitive skin care
 - Dry skin care
- Hair care:
 - Dry hair
 - Damaged hair

Bibliographic data

1-Covas MI, Olive. Oil and the cardiovascular system. *Pharmacol Res.* 2007 Mar;55(3):175-86.

2-Viola P. et al. Virgin olive oil as a fundamental nutritional component and skin protector. *Clin Dermatol.* 2009 Mar-Apr;27(2):159-65.

SUPREM[™] WP VANILLA (Vanille)

Vanilla is the fruit of some orchids of the genus *Vanilla* belonging to the *Orchidiaceae* family and is one of the most appreciated spices worldwide. Found in Madagascar, Reunion, and other tropical areas along the Indian Ocean and the South Pacific, in the West Indies and Central and South America, vanilla bean is mainly derived from *Vanilla planifolia*.



During the 16th century, vanilla met a real success when Christopher Columbus, back from Mexico, brought it back to Europe. Known as the “black gold of Tropics”, vanilla has since then been widely used worldwide. The main aromatic component of vanilla is vanillin (2-4%) which is the most popular food flavoring agent extensively used by food, beverage, perfumery and pharmaceutical industries.

In traditional medicine, vanilla is known for its antiseptic and digestive properties. Recent scientific studies showed the antioxidant activity¹ of vanilla due to its phenol content. These molecules fight against cell oxidation and help to prevent oxidative stress and cellular aging. Vanilla is also known to have relaxing, soothing, nourishing, hydrating, protective, smoothing, softening, and regenerating properties.

INCI name

Water (and) Helianthus Annuus (Sunflower) Seed Oil (and) Lecithin (and) Polyglyceryl-3 Diisostearate (and) Glycerin (and) Glyceryl Stearate (and) Vanilla Planifolia Fruit Extract

Recommended use

- Skin care:
 - Anti-aging care
 - Dry skin
 - Sensitive skin
- Hair care (all types of hair)

Bibliographic data

1-Shyamala BN, Naidu MM, Sulochanamma G, Srinivas P. Studies on the antioxidant activities of natural vanilla extract and its constituent compounds through in vitro models. *J Agric Food Chem*. 2007 Sep 19;55(19):7738-43.

EFFICACY STUDIES



CLINICAL EVALUATION OF THE MOISTURIZING ACTION OF SUPREM[™] WP

OBJECTIVE

The aim of the study is to evaluate the moisturizing effect of the Suprem[™] WP line. In order to reach this goal, an *in vivo* test was carried out on legs of volunteers with a corneometer[®].

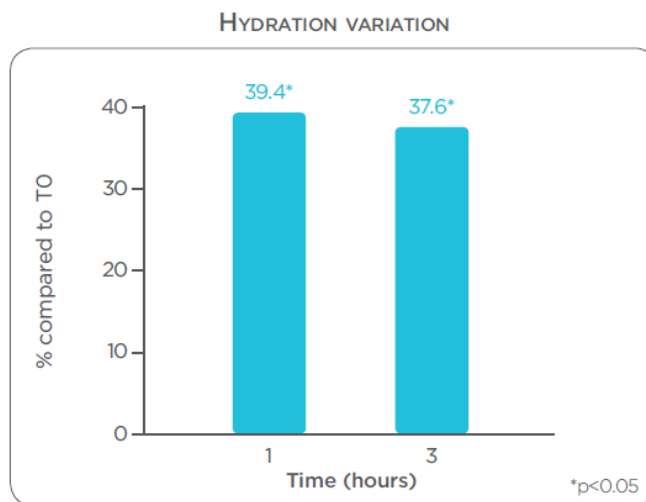
Corneometry is a well-established method to determine the hydration level of skin surface. The principle is based on capacitance measurement of water in the superficial layers of the *stratum corneum*. Here capacitance is defined as a change in the electrical properties of the *stratum corneum*.

Measurements indicate the amount of water present and therefore the degree of skin moisturization.

PROTOCOL

- 10 women with dry skin (age 18 to 65)
- One application of Suprem[™] WP Cotton on leg
- Hydration effect: capacitance was measured after 1 and 3 hours with a corneometer[®]

RESULTS



Suprem[™] WP rapidly improves skin hydration.

CONCLUSION

Suprem[™] WP is a range of vegetable milks offering a highly nutritive and moisturizing action due to their composition in lipids and phospholipids.

They combined the well-known properties of the selected plant with the phospholipids benefits, such as softness and sensorial touch.

Offering also a strong marketing story, Suprem[™] WP is a very attractive ingredient, mixing milk and plant images.

Suitable for any kind of cosmetics products, they are the perfect ingredient to upgrade a line.

COSMETIC APPLICATIONS

- All types of rinse-off and leave-on hair care: Shampoo, Conditioner, Mask, Serum, Balm
- Rinse-off skin care:-Shower gel, Bath gel
- Skin and body skin care: Cream, Lotion, Body milk
- Baby care

RECOMMENDATION FOR USE

INTRODUCTION

Suprem[™] WP should be added at the end of the process, under 40°C

RECOMMENDED DOSAGE: 0.5-5%