

COSMEDIX ACTIVE INGREDIENTS GLOSSARY

INCI Name	Function
Acetyl Hexapeptide-1	Is a biomimetic peptide antagonist specific of the alpha-melanocyte stimulating hormone by preventing any further activation of the tyrosinase, and thus blocking melanin synthesis.
Adenine	is a nucleobase with a variety of roles in biochemistry including cellular respiration, in the form of both the energy-rich adenosine triphosphate (ATP) and protein synthesis, as a chemical component of DNA and .
Alcohol	Carrier, Solubilizer and Antiseptic
Alcohol Denat.	Carrier, Solubilizer and Antiseptic
Allantoin	it is derived from the extracts of a comfrey plant. It softens the skin and enables it to absorb more moisture. It's particularly effective at treating wounds, burns, skin ulcers, eczema, and any other abrasion in the skin.
Aloe Barbadensis Leaf Juice Powder	it is a species of succulent plant in the genus Aloe that grows in arid climates and is widely distributed in Africa, India, and other arid areas. As a soothing, moisturizing and conditioning agent, Aloe vera extracts may be useful in the treatment of wound and burn healing, minor skin infections, Sebaceous cyst, diabetes, and elevated blood lipids in humans. These positive effects are thought to be due to the presence of compounds such as polysaccharides, mannans, anthraquinones, and lectins.
Amino Esters-1	Skin-Conditioning Agent -
Aminoguanidine HCL	It is an investigational drug for the treatment of diabetic nephropathy. It is a diamine oxidase and nitric oxide synthase inhibitor and acts as an anti-oxidant that helps reducing the formation of advanced glycation end-products (AGEs) which destroy collagen and contribute skin aging.
Arabinogalactan Protein (AGP)	is a polysaccharide extracted from larch trees. One of its properties is that it reduces particle size, which helps ingredients disperse and, in doing so, can improve the delivery of actives. Studies have shown it can minimize fine lines due to its structural and functional role in rebuilding the skin matrix.
Arbutin	Extracted from bearberry plant. It inhibits tyrosinase and thus prevents the formation of melanin. Arbutin is found in wheat, and is concentrated in pear skins. It is also found in <i>Bergenia crassifolia</i> (Syberian Tea)

Arnica	<p>Arnica (<i>Arnica montana</i>) has been used for medicinal purposes since the 1500s and is still popular today. Applied to the skin as a cream, ointment, liniment, salve, or tincture, arnica has been used to soothe muscle aches, reduce inflammation, and heal wounds. It is commonly used for injuries such as sprains and bruises. As an herb, arnica is generally used only topically (on the skin) because it can cause serious side effects when taken by mouth. Oral homeopathic remedies do contain arnica, but they use an extremely diluted form that is not considered dangerous.</p>
Ascorbic Acid (L)	<p>is a naturally occurring organic compound with antioxidant properties. Being derived from glucose, many animals are able to produce it, but humans require it as part of their nutrition. It is biosynthesised by all plants and algae, many vertebrates and by a few bacteria starting from certain sugars and sugar alcohols.</p>
Astaxanthin	<p>Is one of the most powerful anti-oxidants. A clinical research study by Dr. Debasis Bagchi at Creighton University demonstrated that astaxanthin can eliminate free radicals 6,000 times more effectively than vitamin C, 800 times more than CoQ10, 550 times more than vitamin E and green tea, 75 times more than Alpha Lipoic Acid, and 20 times more than beta-carotene.</p> <p>In the animal kingdom, this dark red carotenoid pigment is present in the skin and tissues of a variety of sea creatures, including salmon, trout, and lobster, as well as certain birds, such as flamingo and quail. In commercial products, astaxanthin is most often extracted from the marine microalgae <i>haematococcus pluvialis</i>, the richest known source for this natural pigment.</p> <p>Studies have demonstrated that, besides its anti-oxidant property, astaxanthin is also an efficient absorber of specific ultraviolet sunlight rays that may contribute to skin aging and cancer.</p>
Azelaic Acid	<p>Works as an anti-acne agent, bleaching agent, and to a lesser extent, as a treatment for Rosacea. It functions as an anti-bacterial and keratolytic, meaning it returns any abnormal growths on the skin back to normal. For this reason, it is primarily used to clear up bacteria-infested acne, and prevent future outbreaks. With respect to its skin lightening properties, many scientists regard it as a safer alternative to hydroquinone because it does not cause the usual skin irritation associated with many other skin bleaching agents. Furthermore, more and more studies are pointing to its effectiveness in reducing the flushing, lesions, and inflammation common in many Rosacea patients.</p>

Bellis Perennis	Is a common European species of Daisy flowers. It has astringent properties and has been used in folk medicine. In ancient Rome, the surgeons who accompanied Roman legions into battle would order their slaves to pick sacks full of daisies in order to extract their juice. Bandages were soaked in this juice and would then be used to bind sword and spear cuts.
Benzyl Alcohol	Benzyl alcohol is produced naturally by many plants and is commonly found in fruits and teas. It is also found in a variety of essential oils including jasmine, hyacinth, and ylang-ylang. It is also a precursor to a variety of esters, used in the soap, perfume, and flavor industries. It is often added to intravenous medication solutions as a preservative due to its bacteriostatic and antipruritic properties.
Beta-Carotene (D)	It is also a terpenoid. It is a strongly-coloured red-orange pigment abundant in plants and fruits. β -Carotene is also the substance in carrots that colours them orange. is a precursor (inactive form) to vitamin A.
Beta-Glucan (D)	Is a polysaccharide of D-glucose monomers, it occur most commonly as cellulose in plants, the bran of cereal grains, the cell wall of baker's yeast, certain fungi, mushrooms and bacteria. Beta Glucan plays a major in reinforcing the structure of the skin matrix.
Biotin (D)	A water soluble vitamin naturally found in food. Also known as Coenzyme R, Vitamin B7 or Vitamin H. Biotin is a necessary component to the growth and formation of cells, fatty acids and fats, a deficiency of the vitamin often leads to heart problems, skin rash and hair loss.
Bisabolol (L-alpha)	It is the primary component of the essential oil extracted from chamomile. Also known as levomenol. Works as a skin conditioning agent. It enhances the appearance of dehydrated or damaged skin by reducing dry flaking and restoring suppleness to the skin. For hundreds of years, people have used it for medicinal practices, believing it to have anti-irritant, anti-inflammatory and anti-microbial properties. Because of its high panthenol concentration, it can effectively stimulate and promote the skin's healing process.

Blue Agave	The agave plant comes from Mexico. Its fleshy leaves cover the pineapple-shaped heart of the plant, which contains a sweet sticky juice called agave nectar which can be made into a syrup. This syrup is quite tasty and can substitute for honey as a sweetener. Agave is best known for its role in tequila. Compounds derived from the blue agave -- the fruit used to make tequila -- show promise as a new way to deliver drugs to the colon. A class of polysaccharides known as fructans, were used to create tiny microspheres that are able to carry drugs to treat colon diseases, such as ulcerative colitis, irritable bowel syndrome and Crohn's disease. Fructans aren't destroyed in the stomach and may be a delivery system for drugs to treat colon diseases. Researchers exposed fructan microspheres to hydrochloric acid for an hour. When they were taken out of the hydrochloric acid and examined, the microspheres appeared intact.
Butyrospermum Parkii (Shea) Butter	it is a slightly yellowish or ivory-colored natural fat extracted from the nut of the African shea tree (<i>Vitellaria paradoxa</i>) by crushing, boiling and stirring. It is widely used in cosmetics as a moisturizer, an emollient and skin conditioning agent.
Bromelain	It is the primary component of the essential oil extracted from chamomile. Works as a skin conditioning agent. It enhances the appearance of dehydrated or damaged skin by reducing dry flaking and restoring suppleness to the skin. For hundreds of years, people have used it for medicinal practices, believing it to have anti-irritant, anti-inflammatory and anti-microbial properties. Because of its high panthenol concentration, it can effectively stimulate and promote the skin's healing process.
Camellia Sinensis (Green Tea) Leaf Extract	Antioxidant. It has a much higher level of polyphenolic substances than those found in black tea, another herbal antioxidant source, it has also been found that it protects the skin from UV-radiation induced damage and tumor formation.
Caprylic/Capric Triglyceride	A mixed triester derived from coconut oil and glycerin. Mainly works as an emollient, dispersing agent and solvent. As an emollient, it both quickly penetrates the surface to condition the skin/hair, and provides a lightweight and non-greasy barrier of lubrication.
Carbomer	Made from acrylic acid. It is used a thickening agent and a stabilizer for emulsions. It has the ability to absorb and retain water, and can swell up to 1000 times their original volume when dispersed in water.

Carnitine (L)	is a quaternary ammonium compound biosynthesized from the amino acids lysine and methionine. In living cells, it is required for the transport of fatty acids from the cytosol into the mitochondria during the breakdown of lipids (fats) for the generation of metabolic energy. Carnitine was originally found as a growth factor for mealworms and labeled vitamin Bt. Carnitine exists in two stereoisomers: Its biologically active form is L-carnitine, whereas its enantiomer, D-carnitine, is biologically inactive.
Carnosine (L)	Naturally occurring combination of two amino acids (alanine and histidine). Works as an antioxidant and anti-inflammatory agent. It functions as an anti-oxidant by neutralizing and disarming the free radicals responsible for attacking our DNA cells. It helps to chelate ionic metals (flush toxins from the body),
Cassia Angustifolia Seed Polysaccharide	It is the polysaccharide fraction derived from the seed of the Indian Senna, Cassia angustifolia, Leguminosae. The active ingredients are several senna glycosides which interact with immune cells.
Catalase	is an enzyme found in most living organisms which is catalyzing decomposition of hydrogen peroxide to water and oxygen. Catalase is a tetramer of four polypeptide chains, each over 500 amino acids long. Catalase has one of the highest turnover numbers of all enzymes; one catalase molecule can convert 40 million molecules of hydrogen peroxide to water and oxygen each second.
Cetearyl Olivat	The ester of cetearyl alcohol and the fatty acids derived from olive oil. A nonionic emulsifier that helps blend ingredients together in cosmetic solutions, usually ones with moisturizing properties. It's helps soften the skin & hair, and gives products a smooth and luxurious feel.
Cholesteryl Nonanoate	Made of Cholesterol is a lipid and sterol (unsaturated solid alcohol present in fatty tissue). It works as a skin conditioner, thickening agent, stabilizer and water binding agent. Because the skin's natural lipid barrier comprises of cholesterol, this ingredient helps maintain proper functioning in the epidermis by retaining moisture levels and regulating cell activity. It works to strengthen the outer structure of the skin and protect it from dehydration.
Cholesteryl Oleyl Carbonate	Made of Cholesterol is a lipid and sterol (unsaturated solid alcohol present in fatty tissue). It works as a skin conditioner, thickening agent, stabilizer and water binding agent. Because the skin's natural lipid barrier comprises of cholesterol, this ingredient helps maintain proper functioning in the epidermis by retaining moisture levels and regulating cell activity. It works to strengthen the outer structure of the skin and protect it from dehydration.

Cholesteryl Stearate	Made of Cholesterol is a lipid and sterol (unsaturated solid alcohol present in fatty tissue). It works as a skin conditioner, thickening agent, stabilizer and water binding agent. Because the skin's natural lipid barrier comprises of cholesterol, this ingredient helps maintain proper functioning in the epidermis by retaining moisture levels and regulating cell activity. It works to strengthen the outer structure of the skin and protect it from dehydration.
Citric Acid	it is derived from a variety of fruits and vegetables, most notably citrus fruits, lemons and limes. It is a natural preservative/conservative and is also used to reduce the PH of a solution.
Citrus Aurantifolia (Lime) Oil	Skin-Conditioning Essential Oil
Citrus Aurantium Dulcis (Orange) Peel Oil	is a therapeutical "essential oil" that is found in orange rinds. It is a very powerful antiseptic and can be used as fragrant agent
Citrus Grandis (Grapefruit) Peel Oil	It has been shown that it can increase the metabolism of adipose tissue (fat cells, and specifically 'brown' fat cells.) It is also very useful for cleansing oily skin and helping with acne due to its astringent nature. Key natural constituents of the oil are Limonene and Myrcene. Used as fragrant agent also.
Coccinia Indica Fruit Extract	commonly known as 'Ivy gourd' and 'Kundru and because of its powerful antibacterial activity it is valuable in medicine for ring worm, psoriasis, small pox, scabies and other itchy skin eruptions and ulcers.
Cocos Nucifera (Coconut) Fruit Juice	Extracted from coconut fruit feamously known for it super moisturizing, soothing and healing benefits on irritated skin due to its content of trimyristin and trilaurin oils, and in smaller proportions tripalmitin, tristearin, and triolein, besides the glycerides of the volatile caproic, caprylic, and capric acids.
Commiphora Myrrha Oil	Skin-Conditioning Essential Oil
Copper Gluconate	it is the salt of Gluconic Acid. Gluconic acid occurs naturally in fruit, honey, kombucha tea, and wine. it is an acidity regulator and stabilizer. it possesses good binding ability with regard to calcium and iron ions and thereby supports the effects of antioxidants as well as of gelling and thickening agents
CoQ10	See Ubiquinone
Corallina Officinalis Extract	Derived from a calcareous red seaweed which grows in the lower and mid-littoral zones on rocky shores. It is rich in calcium and magnesium. It helps increase oxygen consumption and microcirculation. It reinforces the moisture barrier function of skin.
Cucumis Sativus (Cucumber) Fruit Extract	has both strong moisturizing abilities as well as mild astringent effects. Cucumber extract is soothing and helps relieve the puffiness of the skin. It also helps remove dead skin cells and tightens skin.

Cucumis Sativus (Cucumber) Oil	Skin-Conditioning Essential Oil
Curcuma Longa (Turmeric) Root Extract	A yellow-orange polyphenol that is extracted from the plant curcuma longa, a South Asian plant belonging to the ginger family. Also known as turmeric extract or curcumin. It is used as a anti-inflammatory, antioxidant, fragrance additive and dye.
Cyclopentasiloxane	A silicone mainly used as a conditioner, delivery agent, lubricant and solvent. Like all other silicones, this ingredient has a unique fluidity that makes it easily spreadable. When applied to the skin and hair, it gives a silky & slippery feeling to the touch and acts a mild water repellent by forming a protective barrier on the skin. It can also fill in fine lines/wrinkles, giving the face a temporary "plump" look.
D-alpha-tocopherol	Is one the more natural forms of the vitamin E family. it is an important lipid-soluble antioxidant because it protects cell membranes from oxidation by reacting with lipid radicals produced in the lipid peroxidation chain reaction. This would remove the free radical intermediates and prevent the oxidation reaction from continuing.
Deuterium Oxide (Heavy Water)	Heavy water is water that is highly enriched in deuterium (a Heavy & Stable Hydrogen). It is about 11% denser than water, but otherwise, is physically very similar to water. It is recommended to use it at low doses as it can slow the aging process by helping the body resist oxidative damage.
DHEA	is a natural hormone secreted by the adrenal glands. It is one of the body's key hormones which helps to inter-coordinate the complex endocrine system. DHEA appears to be linked to the healthful resilience of youth. By age 21, the adrenal glands produce abundant levels of DHEA: these levels peak around age 25 to 28. By age 40, DHEA levels are half of what they were at age 21. DHEA levels continue to decline steadily; by age 70, DHEA levels are 10% to 15% of the peak levels. Elderly people sometimes have virtually no DHEA. Extremely low DHEA levels are commonly seen in those with chronic disease regardless of age.
Dimethicone	A silicone mainly used as a conditioner, delivery agent, lubricant and solvent. Like all other silicones, this ingredient has a unique fluidity that makes it easily spreadable. When applied to the skin and hair, it gives a silky & slippery feeling to the touch and acts a mild water repellent by forming a protective barrier on the skin. It can also fill in fine lines/wrinkles, giving the face a temporary "plump" look.
Eclipta Prostrata Extract	commonly known as False Daisy, It grows commonly in moist places as a weed all over the world. In the orient it has been used for centuries to treat disorders like athlete foot, eczema and dermatitis, on the scalp to address hair loss and the leaves have been used in the treatment of scorpion strings.

Elaeis Guineensis (Palm) Oil	Derived from palm tree, it is used as an excellent emollient and has antioxidant properties.
Epigallocatechin Gallate (EGCG)	It is a powerful anti-oxidant isolated from green tea. Because Epigallocatechin gallate is one of the four major catechins in green tea and has a much higher level of polyphenolic substances than those found in black tea, another herbal antioxidant source, it has also been found that it protects the skin from UV-radiation induced damage and tumor formation.
Galactoarabinan	is a polysaccharide extracted from larch trees. One of its properties is that it reduces particle size, which helps ingredients disperse and, in doing so, can improve the delivery of actives. Studies have shown it can minimize fine lines due to its structural and functional role in rebuilding the skin matrix.
Gluconic Acid (D)	is a carboxylic acid. Its structure is similar to that of glucose. Glucuronic acid should not be confused with gluconic acid, a linear carboxylic acid resulting from the oxidation of a different carbon of glucose. Both glucuronic acid and gluconic acid are reported to be found in the fermented drink known as kombucha. Glucuronic acid is common in carbohydrate chains of proteoglycans. It is part of mucous animal secretions (such as saliva) and intercellular matrix (for instance hyaluronan).
Gluconolactone	it is an antioxidant polyhydroxy acid (PHA) that is capable of chelating metals. Gluconolactone is composed of multiple water-attracting hydroxyl groups, which hydrate the skin, resulting in enhanced degrees of moisturization. It is a naturally-occurring additive used as a sequestrant, an acidifier, or a fragrant agent. is commonly found in honey, fruit juices, personal lubricants, and wine.
Glucosamine HCl (D)	Although Glucosamine HCl is normally found in shellfish, it can also be created from the fermentation of corn. Glucosamine is necessary in the body for the structure and function of the skin in assisting in maintaining the elasticity and integrity of the connective tissues. It has also shown to have a strong anti-inflammatory benefits.
Glucuronolactone (D)	is a naturally occurring chemical that is an important structural component of nearly all connective tissues. In human body it is used as a precursor for ascorbic acid synthesis. it is also used as a detoxicant.

Glutathione (L)	<p>It is the major endogenous antioxidant produced by the cells, participating directly in the neutralization of free radicals and reactive oxygen compounds, as well as maintaining exogenous antioxidants such as vitamins C and E in their reduced (active) forms.</p> <p>It's a Thiol: Organosulfur Compound: reduces disulfide bounds formed within cytoplasmic proteins of cysteins by serving as an electron donor.</p> <p>In the cellular response system it is involved in the Regulation of the nitric oxide cycle, which is critical for life but can be problematic if unregulated.</p> <p>It is used in metabolic and biochemical reactions such as DNA synthesis and repair, protein synthesis, prostaglandin synthesis, amino acid transport, and enzyme activation. Thus, every system in the body can be affected by the state of the glutathione system, especially the immune system, the nervous system, the gastrointestinal system and the lungs.</p>
Glycerin	Glycerin forms the backbone of all lipids (triglyceride). It is a byproduct of soap making. Humectant, helps to restore the skin's normal protective barrier function.
Glyceryl Isostearate	used as a thickening and emulsifying agent for oils, waxes, and solvents; a protective coating for hygroscopic powders.
Glycine Soja (Soybean) Oil	It is derived from Soybean Amino Acids and is rich in protein, minerals and vitamins, especially Vitamin E. Wiledly used because of it conditioning and moisturizing property. It also contain the isoflavones and types of phytoestrogen which are considered to boost collagen production.
Glycine Soja (Soybean) Protein	It is derived from Soybean Amino Acids and is rich in protein, minerals and vitamins, especially Vitamin E. Wiledly used because of it conditioning and moisturizing property. It also contain the isoflavones and types of phytoestrogen which are considered to boost collagen production.
Hamamelis Virginiana (Witch Hazel) Water	Witch hazel is generally distilled from the bark and leaves of the eponymous tree. Its is primarily an astringent, a compound that shrinks or constrict body tissues. The bark was used by to treat ulcers of the skin, sores, sore muscles, cuts, bruises, and insect bites. it has tannins and flavenols that recently was attributed to its anti-oxidant prperty
Heavy Water (Deuterium Oxide)	Heavy water is water that is highly enriched in deuterium (a Heavy & Stable Hydrogen). It is about 11% denser than water, but otherwise, is physically very similar to water. It is recommended to use it at low doses as it can slow the aging process by helping the body resist oxidative damage.

Helianthus Annuus (Sunflower) Seed Oil	Sunflower oil contains predominantly linoleic acid in triglyceride form as well as lecithin, tocopherols, carotenoids and waxes, which makes it a premium emollient, conditioner, moisturizing and antioxidant oil.
Hyaluronic Acid	is an anionic, non-sulfated glycosaminoglycan. It is one of the chief components of the extracellular matrix, hyaluronic acid contributes significantly to cell proliferation and migration.
Hydrolyzed Yeast	Skin-Conditioning Agent - Misc.
Hydroxyproline (L)	It is is a common non-proteinogenic amino acid, produced by hydroxylation of the amino acid proline. It is a major component of the protein collagen. Hydroxyproline and proline play key roles for collagen stability. They permit the sharp twisting of the collagen helix.
Lactic Acid (L)	Lactic acid fermentation is performed by <i>Lactobacillus</i> bacteria, among others. In solution, it can lose a proton from the acidic group, producing the lactate ion. In our body Lactate is produced via the enzyme lactate dehydrogenase (LDH) in a process of fermentation during normal metabolism and exercise. used in skin care to hydrate, smooth and flack the skin.
Lawsonia Inermis (Henna) Extract	Antimicrobial Agent, also used as coloring agent.
L-glutathione	It is an antioxidant, preventing damage to important cellular components caused by reactive oxygen species such as free radicals and peroxides. It is synthesized in the body from the amino acids L-cysteine, L-glutamic acid, and glycine.
LG-Retinex	LG-Retinex is a liposomal particle in which we encapsulated the two gold standard retinoids used in the cosmeceutical skin care today, as well as one of the key component of the Extra Cellular matrix, Glycoaminoglycans. The transport and release of these actives occur through the liposome release mechanism.
Lipoic Acid (R)	See Thiotic Acid

Liposomes	<p>Liposomes are spherical vesicles produced from phospholipids. Typically they are used as delivery systems of active ingredients.</p> <p>Phospholipids, when in an aqueous environment, form bilayers oriented with the phosphate heads facing outwards shielding the hydrophobic alkyl tails. The addition of energy causes these bilayers to assume a spherical configuration so that there is a hydrophilic core surrounded by the phospholipid bilayer that in turn is surrounded by water. It is estimated that each phosphate head group binds approximately 23 molecules of water. Bilayers can be layered over each other to create a structure that looks very much like an onion under a sufficiently strong microscope. Generally speaking liposome are very efficient at protecting lipophilic materials from the environment of a formulation and enhancing the delivery of both water and oil-soluble actives.</p>
Liquid Crystal Complex	<p>Made of Cholesterol a lipid and sterol (unsaturated solid alcohol present in fatty tissue) that works as a skin conditioner, thickening agent, stabilizer and water binding agent. Because the skin's natural lipid barrier comprises of cholesterol, this ingredient helps maintain proper functioning in the epidermis by retaining moisture levels and regulating cell activity. It works to strengthen the outer structure of the skin and protect it from dehydration. Furthermore, the liquid crystal system enhances the moisturizing ability of the emulsion. In this special network the quantity of water entrapped inside that structure become immediately available when the cream is applied to the skin. The evaporation of the water in the emulsion is slower and permits a hydro-retentive action that prolongs the moisturizing effect. For these reasons these emulsions have a shinny surface, a fresh and original feel and they leave a light and pleasant sensation on the skin.</p>
Lonicera Caprifolium (Honeysuckle) Flower Extract	Skin Conditioning agent
Magnesium Aluminum Silicate	Magnesium Aluminum Silicate is a naturally occurring mineral derived from refined and purified clay that is used primarily as a thickener and a filler.
Melaleuca Alternifolia (Tea Tree) Leaf Oil	<p>Tea tree's major contribution to dermatology is its broad spectrum of antimicrobial activity. Tea tree oil also acts as an anti-infective agent and strongly stimulates the body's own immune system.</p>
Melia Azadirachta (Neem) Flower Extract	Derived from a tree in the mahogany family. Science has identified hundreds of active compounds, from various parts of the plant with pesticidal, nematicidal, fungicidal, bactericidal, anti inflammatory, anti-tumor and other properties.
Menthol (L)	It is the alcohol form of peppermint or other mint oils.

Moringa Pterygosperma Seed Oil	is the oil obtained from the seeds of the tropical tree Moringa pterygosperma, Moringaceae. Its nutrient-rich leaves and seeds can be eaten, and the oil pressed from its seeds is chock-full of radiance-boosting fatty acids and vitamins A and C. it has a phenomenal skin-smoothing de-puffing and anti-oxidant benefits.
Niacinamide	Niacinimide is a derivative of Vitamin B3 that suppresses melanin from reaching the surface of the skin and protects the skin from further UV damage. Topical application of Niacinamide has been shown to increase ceramide and free fatty acid levels in skin, prevent skin from losing water content, and stimulate microcirculation in the dermis. It also contribute to reductions of fine lines and wrinkles, hyperpigmented spots, red blotchiness, and skin sallowness (yellowing)
Nonapeptide-1	Is a biomimetic peptide antagonist specific of the alpha-melanocyte stimulating hormone by preventing any further activation of the tyrosinase, and thus blocking melanin synthesis.
Ocimum Basilicum (Basil) Leaf Extract	Derived from an aromatic plant also known as Tulsi or holy Basil . Due to its high concentration of eugenol Its properties make it a good local antiseptic and analgesic, as well as anti-oxidant and a UV absorber.
Olea Europaea (Olive) Fruit Oil	Beside it powerful antioxidant and moisturizing/emollient property, studies on mice showed that application of olive oil immediately following exposure to UVB rays has a preventive effect on the formation of tumors and skin cancer.
Oryza Sativa (Rice) Bran Oil	Rich in aliphatic acids, alochol esters, fatty acids, squalene and phospholipids which makes it an excellent emollient, moisturizing and conditioning agent.
Panthenol (D)	Known also as Provitamin B5, it has the ability to bind and penetrate the skin, providing it with lubrication and hydration. It has been seen to improve hydration, reduce itching and inflammation of the skin and accelerate and improve healing of epidermal wounds; it is also often used in sunburn treatment products.
Peumus Boldus Leaf Extract	Derived from a Tree known as Bold and native to Chile. Its leaves, which have a strong, woody and slightly bitter flavor and camphor-like aroma. It is known for its blood circulation stimulating and antispectic property.
Phenyl t-Butylnitrone (Spin Trap)	Antioxidant. It detects and identifies the unstable free radical. the radical is then added (or traped) added to the spin trap in order to form a more stable radical, hence stoping the oxidative stress.

Phospholipids	<p>Phospholipids are essential components of the human body and is the main component of the cell membrane. It is a natural ingredient for personal care products created to nourish, moisturize, cleanse and condition skin and hair.</p> <p>Phospholipids have a 'biomimetic' property – meaning they copy the natural structure of the body's cells – which makes them ideal components for delivering active ingredients into the skin.</p>
Polyethylene (Beads)	Polyethylene is a polymer, or plastic made in small beads and used as an exfoliator for smoothing or polishing the skin.
Polyglyceryl-4 Caprate	Made of Polyglycerol esters, they are excellent emollient emulsifiers and solubilizers.
Polygonum Cuspidatum (Resveratrol) Extract	This resveratrol is derived from a plant known as the Japanese Knotweed. Resveratrol is an anti-aging, antioxidant and anti-inflammatory active ingredient. And a pretty powerful one. Most scientists agree that it is one helluva molecule.
Polyhydroxystearic Acid	it is a suspending agent and emulsifier that is used to stabilize products. It is often seen in formulas that contain an SPF component, such as sunscreens.
Polysorbate 20	It is derived from Lauric Acid and is also a chemical mixture of sorbitol ethylene oxide. It is a good emulsifier and solubilizer of oil into water solutions.
Proline (L)	Proline is one of the twenty non-essential amino acids, meaning that it can be created and synthesized within the human body. It is involved in the body's production of collagen. it has the ability to strengthen and renew aging skin cells. One-sixth of collagen, a major building block of skin (and its youthful appearance) is comprised of proline. Proline can break down protein to help create healthy cells and connective tissues, promoting firmer, glowing skin and reducing sagging, wrinkles and aging of skin due to sun exposure.
Propylene Glycol	Can also be converted from Glycerin. it is metabolized by the body into lactic acid, which occurs naturally when muscles are exercised, while ethylene glycol is metabolized into oxalic acid, which is toxic. It a moisturizer, skin conditioning agent, carrier in fragrance oils, solvent and viscosity decreasing agent.
Pyridoxine HCL	Pyridoxine HCl is the hydrochloride salt of Vitamin B6. When applied naturally in the body, Pyridoxine assists in the balancing of sodium and potassium as well as promoting red blood cell production. It is also thought to be a preventative for dandruff, eczema, acne and psoriasis.

Resorcinol	It is produced when any of a large number of resins (e.g. galbanum, asafoetida, etc.) are melted with potassium hydroxide, or by the distillation of Brazilwood extract. It is an antiseptic and disinfectant, and is used in the treatment of chronic skin diseases such as Acne, Psoriasis, Hidradenitis Suppurativa and eczema. It was demonstrated that Resorcinol and its derivatives have the ability to stop the formation of pigmentation therefore lightening the skin.
Resveratrol	is a type of natural phenol produced naturally by several plants when under attack by pathogens such as bacteria or fungi. It is found in the skin of red grapes and in other fruits. However, red wine contains very little of it, in the order of one milligram per glass. Resveratrol has also been produced by chemical synthesis and by biotechnological synthesis derived primarily from Japanese knotweed.
Retinal (Retinaldehyde)	It is one of the most potent and active forms of vitamin A, an antiaging/antiwrinkle active that helps stimulating the fibroblast, therefore contributing to the collagen production mechanism.
Retinol	It is one of the most potent and active forms of vitamin A, an antiaging/antiwrinkle active that helps stimulating the fibroblast, therefore contributing to the collagen production mechanism.
Retinyl Acetate	It is a naturally-occurring fatty acid ester form of vitamin A, an antiaging/antiwrinkle active that helps stimulating the fibroblast, therefore contributing to the collagen production mechanism.
Rosmarinus Officinalis (Rosemary) Leaf Oil	it contains a number of potentially biologically active compounds, including antioxidants such as carnosic acid and rosmarinic acid. Other bioactive compounds include camphor (up to 20% in dry rosemary leaves), caffeic acid, ursolic acid, betulinic acid, rosmaridiphenol, and rosmanol.
Rumex	grows in the northern Canadian Prairies region. This abundant plant is easily recognized by its hallmark deep-rust colored seed heads glowing across the fields from early summer through late fall.
Salicylic Acid	It is a Beta Hydroxy Acid derived from the metabolism of salicin, which is an anti-inflammatory agent that is produced from willow bark. Salicylic Acid functions as a plant hormone. In addition to being a compound that is chemically similar to but not identical to the active component of aspirin (acetylsalicylic acid), it is probably best known for its use in anti-acne treatments. It also works as a keratolytic by exfoliating the skin, "causing the cells of the epidermis to shed more readily, preventing pores from clogging up, and allowing room for new cell growth".
Salvia Sclarea (Clary) Oil	Skin-Conditioning Essential Oil

Santalum Album (Sandalwood) Oil	Sandalwood has been used in Ayurvedic medicine for centuries, traditionally as a skin tonic, and for yogic meditative practice. It may be beneficial for both acne and dry skin.
Simmondsia Chinensis (Jojoba) Seed Oil	it is the most similar to human skin oil (sebum) which explains why it quickly penetrates in the skin given it the vitality it needs.
Simmondsia Chinensis (Jojoba) Seed Oil	it is the most similar to human skin oil (sebum) which explains why it quickly penetrates in the skin given it the vitality it needs.
Sodium Benzoate	It occurs naturally in some plants, such as cranberries. It is used as a preservative in food and cosmetic products.
Sodium Hyaluronate (L)	It is a salt of Hyaluronic Acid, a naturally occurring and widespread component found within the extra-cellular space within bodily tissues, especially those of the face. Originally extracted from rooster combs, it is now produced as a reactive byproduct of a benign bacteria and is identical to the substance found within the skin. Its water-binding and water-attracting attributes fill up the spaces between the connective fibers collagen and elastin in the dermis. it works to hydrate and separate the skin, holding onto water and supporting all that makes the face plump and voluptuous.
Sodium Hydroxymethylglycinate	Sodium Hydroxymethylglycinate is a preservative derived from the naturally occurring amino acid, glycine. It is often used in skin care products as a better alternative to parabens. It is considered an effective preservative because of its ability to cover a broad spectrum of microbes and protect formulas against bacteria, yeast and mold.
Sodium Lactate	Sodium Lactate is the natural salt derived from a natural fermentation product, lactic acid. Because of its antimicrobial action and ability to inhibit bacteria development, it is often used as a preservative. It is also used as buffering agent, pH controlling agent, or exfoliant.
Sodium Metabisulfite	It is an organic salt used as a disinfectant, antioxidant and preservative agent.
Sodium PCA	is a naturally occurring humectant found in human skin that is a derivative of amino acids. Sodium PCA has high water absorbing properties, and is also considered to be hygroscopic, with the ability to absorb moisture from the air.
Solanum Melongena (Eggplant) Fruit Extract	Contains potassium and folic acid. Excellent free radical scavenger.
Sorbitan Olivat	An emulsifier also derived from olive oil. Mainly works as an emollient, dispersing agent and solvent. As an emollient, it both quickly penetrates the surface to condition the skin/hair, and provides a lightweight and non-greasy barrier of lubrication.

Sorbitol	Sorbitol is a sugar alcohol derived from fruits, corn and seaweed. As a humectant, Sorbitol prevents moisture loss by pulling water by osmosis from the air, hydrating skin.
Soy Isoflavones	The physiologically-relevant compounds in soy are the isoflavones, a subgroup of polyphenolic plant compounds. Isoflavones, or phytoestrogens, adopt a chemical structure very similar to that of the human hormone estrogen after hydrolysis of the sugar moiety. The isoflavones contained in soybeans appear predominantly in the form of polar, water-soluble glycosides, such as genistin.
Spin Trap	<p>Spin Trapping is an analytical technique that involves the addition of radical to a nitron spin trap resulting in the formation of a spin adduct, a nitroxide-based persistent and stable radical.</p> <p>Recently, researchers found that the underlying mechanism of "spin trap" activity differs from antioxidants. This mechanism involves actions at a level proximal to oxidatively sensitive signal amplification systems rather than simple neutralization of free radicals.</p> <p>Studies have now been conducted that daily administration of a free radical spin trapping compound, PBN, for fourteen days completely reverses the process of protein oxidation. Not only is the level of protein oxidation decreased, but the abnormally low level of enzyme activity is restored to normal.</p> <p>Another study has shown that Spin Trap has extended the life span of mice.</p>
Squalane	It can be found in many vegetable oils. It is also found in human sebaceous secretions, as a precursor of cholesterol. While it has the ability to completely and rapidly penetrate the skin, Squalane is an antioxidant, prevents UV damage and the formation of age spots and promotes cell growth.
Superoxide Dismutase	is an antioxidant naturally found in the body, and is a part of a class of "enzymes that catalyze the dismutation of superoxide into oxygen and hydrogen peroxide. It is also found in most plants and vegetables. protect the cell from superoxide (the most common free radical in the body) toxicity; it has the fastest turnover number of any known enzyme helping preventing wrinkles, fine lines, age spots, help with wound healing, soften scar tissue, protect against UV rays, and reduce other signs of aging.
Tamanu Oil	

Tetrahydrocurcuminoids	<p>are derived from curcuminoids (extracted from the roots of <i>Curcuma longa</i>, commonly called turmeric root).</p> <p>This compound is colorless, unlike the yellow curcuminoids.</p> <p>A set of studies revealed that the Curcuminoids and Tetrahydrocurcuminoids (THC) are more potent antioxidants and have better scavenging property than the commonly used synthetic antioxidant such as Vitamin E and Butylated Hydroxytoluene (BHT).</p>
Tetrahydrobisdemethoxydiferuloylmethane	Derived from curcumin it is a potent antioxidant and anti-inflammatory agent that can be effective in wound healing.
Tetrahydrodemethoxydiferuloylmethane	It is an antioxidant that provides the protective effects of potent antioxidant curcumin. Known collectively as curcuminoids, these compounds exert an anti-inflammatory benefit as well as reducing the formation of advanced glycation end-products (AGEs) which destroy collagen and contribute skin aging.
Tetrahydrodiferuloylmethane	It is a derivative of turmeric used as a skin-whitening ingredient, blocking the synthesis of skin discoloration by inhibiting tyrosinase, an enzyme that catalyzes the production of melanin. It also sometimes seen as an antioxidant.
Tetrasodium EDTA	It is a water-soluble ingredient used as a chelating agent because of its ability to sequester metal ions and allow them to remain in formulas but lose their ability to react with other ingredients. This ability allows it to not only soften water, but preserve formulas as well by improving its stability when it is exposed to air and prevent microbial growth.

Thioctic (R-lipoic) Acid	<p>Free radical scavenger. is considered a "non-vitamin" nutrient that is essential to life; it is both fat and water-soluble and therefore is easily absorbed and transported across cell membranes. It helps to recycle other antioxidants - when vitamin E for instance quenches lipid peroxidation, and a vitamin E radical is formed, alpha lipoic acid will reduce it back to the active state of vitamin E. The same reaction occurs in the presence of the anti-oxidant, vitamin C.</p> <p>Thioctic Acid is also thought to serve as an anti-inflammatory by preventing the activation of NFk-B and cytokines from forming. It is also known to boost glutathione levels in cells.</p> <p>According to a study published in the British Journal of Dermatology, 33 middle-aged women were treated twice daily, using a 5% Alpha Lipoic Acid (Thiotic Acid) on half of their face, and a control cream on the other half. After 12 weeks, the study found that skin quality improved by about 50% in regards to smoothness and wrinkle reduction.</p>
Titanium Dioxide	Titanium Dioxide is a physical sun blocking agent that work primary by reflecting/scattering the UV light with a broad range covering UVB as well as both short (320-340nm :UVA-2) and long (340-400nm: UVA-1) UVA. Titanium dioxide has a long history of safe use. It is not irritating and compatible with sensitive skin.
Tocopherol (D-alpha)	Is one the more natural forms of the vitamin E family. it is an important lipid-soluble antioxidant because it protects cell membranes from oxidation by reacting with lipid radicals produced in the lipid peroxidation chain reaction. This would remove the free radical intermediates and prevent the oxidation reaction from continuing.
Tocopheryl Acetate (D-alpha)	Tocopheryl Acetate is a naturally occurring antioxidant that is a form of Vitamin E, a natural skin-conditioning agent and moisturizer. It is the ester of acetic acid and tocopherol and is often used as an alternative to tocopherol (or undiluted Vitamin E) itself because it is considered less acidic. "It is believed that the acetate is slowly hydrolyzed once it is absorbed into the skin, regenerating tocopherol and providing protection against the sun's ultraviolet rays,
Tocotrienols	they are members of the vitamin E family. they are important lipid-soluble antioxidants because they protect cell membranes from oxidation by reacting with lipid radicals produced in the lipid peroxidation chain reaction. This would remove the free radical intermediates and prevent the oxidation reaction from continuing.
Triticum Vulgare (Wheat) Germ Oil	extracted from the germ of the wheat kernel and has the highest content of Vitamin E of any food, which makes it one of the most potent antioxidant and emollient oil in the cosmetic ingredient.

Ubiquinone (CoQ10)	is a vitamin-like substance produced by the human body and is necessary for the basic functioning of cells. This oil-soluble substance is present in most eukaryotic cells, primarily in the mitochondria. It is a component of the electron transport chain and participates in aerobic cellular respiration, generating energy in the form of ATP. All organs with the highest energy requirements—such as the heart, liver and kidney —have the highest CoQ10 concentrations. There are three redox states of coenzyme Q10: fully oxidized (ubiquinone), semiquinone (ubisemiquinone), and fully reduced (ubiquinol). The capacity of this molecule to exist in a completely oxidized form and a completely reduced form enables it to perform its functions in electron transport chain and as an antioxidant respectively.
Vaccinium Angustifolium (Blueberry) Fruit Extract	The two most active constituents found in blueberries are anthocyanins and pterostilbene. Blueberry anthocyanins are considered one of nature's most potent antioxidants. Pterostilbene is the other blueberry constituent that helps maintain healthy lipid and glucose levels within the healthy ranges. Through its unique biological effects and antioxidative potential, pterostilbene helps maintain healthy DNA structure.
Vitis Vinifera (Grape) Seed Extract	it has been traditionally used as a wound healer and anti-inflammatory, dating back to European folk healers. It is now used for its numerous properties that are thought to be beneficial, including as an anti-dandruff, anti-fungal, anti-microbial, antioxidant, and UV absorber ingredient.
Whalteria Indica Leaf Extract	a flowering plant indigenous to Hawaii, from some regions of India and of Africa, reduces melanin pigmentation by inhibition of tyrosinase and by chelation of Cu ²⁺ at the level of melanocytes. It also promotes desquamation of the superficial horny layers and the melanin pigmentary residues contained therein.
Whey Protein	It is a mixture of globular proteins isolated from whey, the liquid material created as a by-product of cheese production. Some preclinical studies in rodents have suggested that whey protein may possess anti-inflammatory or anti-cancer properties.
Xanthan Gum	it is polysaccharide derived from glucose or sucrose. It is used as a binder, emulsion stabilizer, emulsifying surfactant, as well as an aqueous viscosity increasing agent. because of its capability to hold water, enhance freeze-thaw stability, and improve shelf life and help with the stabilization of a product. It also has skin-conditioning and moisturizing properties.

Zea Mays (Blue Corn) Kernel Meal	Highly effective skin nutrient and conditioner due to its contents in minerals (potassium, calcium, magnesium), B vitamins, Chlorophyll, Resin, vitamin K and fixed oils. However, Maizinic acid remains the principal active of Corn silk extract. Can also be used as a bulking agent.
Zinc Oxide	Zinc Oxide is a physical sun blocking agent that works primarily by reflecting/scattering the UV light with a broad range covering UVB as well as both short (320-340nm :UVA-2) and long (340-400nm: UVA-1) UVA. Zinc oxide has a long history of safe use. It is not irritating and compatible with sensitive skin. In fact, zinc oxide is a skin protectant and anti-irritant, and is widely used in treating various forms of dermatitis/skin irritation, including diaper rash.