

A

Acacia Gum- Dried gummy exudation from the stems and branches; complex of sugars and hemicelluloses

Acetic Acid- Is used as a fungicide and as a solvent for many organic compounds.

Acetylated Lanolin Alcohol - A hypoallergenic lanolin-derived emollient with a smooth, velvety feel. Acetylated lanolin forms a protective coating on the skin's surface and prevents moisture loss.

Acetyl-L-Carnitine- similar in form to the amino acid Carnitine and also has some similar functions, such as being involved in the metabolism of food into energy. The acetyl group that is a part of acetyl-L-carnitine contributes to the production of the neurotransmitter acetylcholine.

Acrylates Copolymer- Synthetic compound. Functions as film former / viscosity adjuster

Adenosine Phosphate- One adenosine phosphate molecule attached to an inorganic phosphate molecule via a low energy bond.

Alanine: An amino acid, one of the 20 building blocks of protein. Alanine is not an "essential" amino acid. It is not essential to the diet, but can be made by the body from other substances.

Alcohol (Grain Alcohol)- Disinfectant and natural preservative derived from sugar beets.

Alfalfa - An extract of alfalfa, medicago sativa. A source of Vitamins C, D, E and K.

Allantoin- promotes wound healing, speeds up cell regeneration, and has a keratolytic (skin-softening) effect. It is said to clean away necrotic tissue, hastening the growth of new healthy tissue. The FDA OTC Panel has not recognized Allantoin as a wound-healing agent, only as a skin protectant.

Almond Oil - oil extracted from the seeds of sweet almonds and used as an emollient.

Aloe Extract - An oil-soluble extract of the aloe Vera plant or any other member of the aloe family, known for the hydrating and soothing properties.

Aloe Vera Gel - Extract of the Aloe Vera leaf. Exhibits excellent hydrating, softening and soothing properties. Believed to have healing properties, especially for sunburned skin, provided the extract has not been altered during processing. A source of Allantoin.

Aloe Vera Oil - The gel extracted from the leaves of the aloe vera plant, a member of the lily family.

Alpha Bisabolol - A myrrh-type gum resin with anti-irritant properties.

Alpha Lipoic Acid (ALA)- is a powerful antioxidant and actually regenerates free radicals back to their protective antioxidant state. Alpha Lipoic Acid is capable of regenerating several other antioxidants back to their active states including vitamin C, Vitamin E, glutathione, and Coenzyme Q 10.

Aminomethyl Propanedial - An alkalizer / neutralizer used to adjust pH in cosmetic preparations.

Ammonium Laureth Sulfate - Surfactant. Used as primary surfactant for many shampoos. Low irritation.

Apricot Kernel Oil - Oil expressed from the seeds of apricots.

Aloe Juice - Any concentration or dilution of aloe vera gel.

Apple Extract (Pyrus Malus Fruit) - Helps replenish the elastin in the skin.

Arginine - An amino acid, one of the 20 amino acids that serve as the building blocks in protein. Arginine is not an "essential" amino acid. It is not essential to the diet, but can be made by the body from other substances. However, it is usually considered essential to the diet for children so they can grow normally. Lack of arginine in the diet impairs growth and in adult males it decreases the sperm count.

Arnica - A stimulant that is said to increase circulation to the areas to which it is applied. Should only be applied to unbroken skin.

Arnica Tincture-Composed of sesquiterpene lactones, which are known for anti-inflammatory and pain reduction properties.

Ascorbic Acid- Vitamin C, antioxidant.

Ascorbyl Palmitate -Fat-soluble, highly absorbable form of vitamin C. Free-radical fighting antioxidant promotes healthy skin. A major role of vitamin C is in manufacturing collagen, a protein that forms the basis of connective tissue (the most abundant tissue in the body).

Avobenzene- UVA Filter.

Avocado Oil- Persea Americana, Expressed from the Fruit It is rich and heavy, deeply penetrating and rich in vitamins A and D, lecithin, potassium as well as vitamin E. The crude oil is greenish yellow in color as it still contains some chlorophyll and is classified as a mono-unsaturated oil. The aroma is somewhat sweet, fatty and nutty in medium intensity.

B

Banana Oil: The natural fragrance derived from bananas. Used as a solvent in some formulations.

Beeswax: Purified wax from the honey-comb of the bee. Used primarily as an emulsifier.

Behentrimonium Methosulfate- Antistatic Agent. Hair Conditioning Agent.

Benzophenone-3: Oxybenzone. An organic benzophen derivative. A sun-screen active in both UV-B and UV-A spectrums. Used in conjunction with a second sunscreen to obtain higher protection values of SPF 8 and above.

Benzothonium Chloride: A salt derivative that serves as an antiseptic and germicide.

Benzyl Alcohol: Solvent with a faint, sweet odor. Used in many perfumes.

Betaglucan- Yeast derived cell protector and skin strengthener.

Bladderwrack: A source of iodine; reported to help remove toxins.

Borage: An herbaceous plant, *borgo officinalis*. Skin soother.

Butylene Glycol: A petroleum-derived mechanical ingredient.

Butylparaben: The ester of butyl alcohol and p-hydroxybenzoic acid family. An oil-soluble preservative of the paraben family.

C

C12-C15 Alcohols Benzoate: The ester of benzoic acid and C- 12-15 alcohols.

C10-13 Isoparaffin- Mixture of hydrocarbons (mineral oils) derived from petroleum. Functions as an Emollient / Moisturiser / Solvent

Caffeine- Slimming agent.

Calendula Officinalis/ Calendula Extract- Extracted from Calendula Blossoms. Known for its Balancing, anti-inflammatory and wound healing properties.

Cameilia Extract/ Green Tea Extract- Extract of a tea leaves known for anti-inflammatory and antioxidant properties.

Camphor- a bicyclic [terpene](#) ketone, is a tough gummy volatile fragrant crystalline compound obtained from the wood and bark of the camphor tree (*Cinnamomum camphora*, Taiwan) by steam distillation.

Caprylic/Capric Triglyceride: The mixed triester of glycerin and caprylic and capric acids. An emollient ester derived from coconut oil with good lubricating properties.

Carbopol (or Carbomer 940/941/934): Thickening agents.

Carotene (Beta Carotene): Found primarily in carrots. A pro-vitamin, converted by the body into vitamin A, carotene gives a yellow to orange-red color to formulations.

Castor Oil: Emollient, natural oil. Used in hair dressings, lipsticks, and skincare lotions. Obtained from the castor bean.

Cat's claw- Also known by its Spanish name, *uña de gato*, is an herb that has gained recent popularity in the U.S. herb market.

Cellulose- Fiber obtained from bamboo that Improves spreading of emulsions.

Ceramide- Skin similar lipids from plants highly increases the moisture of the skin.

Ceteareth-20: Derived from cetearyl alcohol through ethoxylation. Used with the parent alcohol or with other fatty alcohols, it functions as a primary emulsifier and thickening agent.

Cetearyl Alcohol: A waxy, crystalline solid used as an emulsifier. Not to be confused with drying, ethyl alcohols.

Cetyl Alcohol: A secondary emulsifier that thickens or adds body to lotions. Not to be confused with drying, ethyl alcohols.

Chamomile Extract: Extract made from the flowers of *anthemis nobilis*. Used for its soothing properties.

Chaparral Extract (*Larrea tridentata*)- It is responsible for inhibiting several enzyme reactions, including lipoxygenase, which is responsible for some unhealthy inflammatory and immune-system responses. Larrea contains active flavonoids and ligands that, in addition to being anti-oxidants, act as antifungals, antibiotics, and antivirals.

Chlorophyll: The green coloring matter in plants. Known for its natural cleansing and moisturizing properties.

Cholesterol Escin Complex: Thought to aid in detoxification and shrinking of fat cells.

Chrysin- Flavone X, which comes from the herb passiflora coerulea.

Cinnamidopropyl Trimonium Chloride- Quarternized UV absorber; protects hair by preventing UVB damage

Citric Acid: An organic acid. Naturally occurring in citrus fruits and used to adjust the pH of products.

Cocamidopropyl Betaine: Surfactant derived from coconut oil. Used in low irritation, conditioning shampoos.

Cocoa Butter: Obtained from cocoa beans, used as an emollient. Used in suntan lotions as well as the manufacture of chocolate.

Coconut Oil: Natural oil derived from coconuts. Has a defatting effect on skin which is overcome by using coconut oil-derived esters rather than the oil itself. Surfactants derived from coconut oil have good cleansing properties and are generally known to be mild.

Coenzyme Q10 - A fat-soluble molecule that works synergistically with the antioxidant cycle to protect the fatty part of the cell from free radical attack.

Collagen (Soluble): A protein derived from the selected skins of young animals or from vegetable sources. The collagen molecule is too large to penetrate the unbroken skin. However, it forms a superior protective film to soothe and hydrate. Collagen is chemically bonded to water and so provides long-lasting moisturizing effects.

Comfrey: Plant which contains allantoin, which is thought to stimulate the growth of healthy tissue.

Comfrey Extract: An extract of the fruit of *citrullus colocynthis*. Skin soother and moisturizer.

Copper Peptides: Organic copper proteins help to accelerate the tanning process by boosting your melanocytes with organic copper, while the protein provides soothing and nourishing benefits to the skin.

Corn Oil: Natural golden-colored oil expressed from corn kernels, *zea mays*. Rich in linoleic acid, one of the three essential fatty acids.

Corn Starch: Obtained from corn and used as a drawing agent. Absorbs water and soothes the skin.

Cucumber Extract: From the same family as aloe; strong moisturizing capabilities.

Cyclic AMP -is irreplaceable as a substrate for protein kinase which activates directly the triglyceride lipase.

Cyclomethicone: A volatile silicone compound used to reduce the greasy feel of tanning oils.

D

Dandelion: A vegetable source of protein that is high in skin-friendly ingredients.

D&C Red #33: Certified monoazo colorant permitted for use in drugs and cosmetics but not in food.

DEA (Diethanolamine): A neutralizing agent that raises pH.

Decyl Oleate: The ester of decyl alcohol and oleic acid. An emollient that adds body to lotions.

Deionized/Demineralized Water: Water run through active resin beds to remove metallic ions and filtered through a submicron filter to remove suspended impurities.

DHA (DeHydroxyAcetone) - derived from sugar cane, causes the surface layer of your skin to oxidize, creating a natural-looking tan.

Dicalcium Phosphate- Is manufactured from phosphoric acid. It's an antioxidant in food, an abrasive agent in toothpaste (dicalcium phosphate dihydrate) as well as being a firming agent.

Dicetyldimonium Chloride: A quaternary ammonium salt. Conditioner.

Dihydroxyacetone: The active ingredient of sunless tanning products. Dihydroxyacetone, or DHA, reacts with amino acids in the outer layers of the skin to produce a browning effect.

Dimethicone: Used for its superior spreadability, excellent emolliency, and water repellency.

Dimethicone Copolyol: A silicone derived emollient used in conditioner preparations for hair and skin.

DL-Alpha Tocopheryl Acetate: See vitamin E.

DMDM (Dimethylol Dimethyl): Used with hydantoin to form a preservative. Slowly releases formaldehyde to give bactericidal properties to lotions.

Dimethyl Lauramine Oleate: Salt of dimethyl lauramine and oleic acid. Conditioning agent for hair.

Disodium Oleamide MEA-Sulfosuccinate: A wax-like solid surfactant used as a solubilizer and wetting agent in bath preparations and lotions.

E

EchinaceaPurpurea/ ConeflowerExtract- Obtained by extraction from blooms and leaves of Echinacea used for its anti-inflammatory and skin protecting properties.

EDTA (Ethylene Diamine Tetra Acetic Acid): A synthetic compound used in lotions as a preservative.

Elastin: A protein, found in the layers of skin and artery walls, that keeps skin soft and supple. Used as a moisture binder.

Ergocalciferol: Known as Vitamin D when used in food products or skincare lotions.

Essential Oils: Naturally fragrant oils used in cosmetics, aromatherapy, medicine, perfumery, and flavoring.

Evening Primrose Oil - helps your body replenish moisture lost to tanning, minimizing flaking and peeling for the appearance of a longer-lasting tan.

Ethyl Alcohol: Acts as a fat solvent in oils and lotions.

Ethylparaben: A microbial preservative.

Eucalyptus Oil: A vegetable oil valued for its awakening, revitalizing fragrance.

F

FD&C Dyes: Dyes approved by FDA for food, drug, and cosmetic use.

Folic Acid- Folic acid, also known as folate, is a B12-vitamin that can be found in some enriched foods.

Fragrance: An aromatic blend of: essential oils of natural origin; or essential oils of natural origin and synthetic fragrance materials; or completely synthetic fragrance materials.

Free Radical Scavengers - naturally derived anti-oxidants that counteract the free radicals that cause fine lines and wrinkles.

G

Gelatin: Obtained by hydrolysis of collagen. Used as thickener and bodying agent in shampoos and face masks.

GinkgoBiloba/ GinkgoExtract- Obtained by extraction of the leaves of the ginkgo tree. Promotes circulation and supports cell regeneration.

Ginseng: Extract of ginseng root. Demulcent, anti-irritant, soothing.

Glucose Tyrosinate: A source of soluble tyrosine, this gives lotion a characteristic tan color.

Glutamic acid: An amino acid, one of the 20 building blocks of protein. A nonessential amino acid, glutamic acid is present in many animal and plant proteins. It is involved in ammonia metabolism and serves as a neurotransmitter.

Glutathione. - The most abundant antioxidant in the network is glutathione, which is produced by the bodies three amino acids found in food: glutamic acid, cysteine, and glycine.

Glycereth: Polyethylene glycol ester of glycerin. An emollient.

Glycereth 26: The polyethylene glycol ether of glycerin with an average ethoxylation value of 26. An emollient.

Glycerin (Natural Vegetable): A naturally derived skin friendly humectant prepared by the hydrolysis of fats and oils.

Glyceryl Monostearate: A waxlike solid used as an emulsifying and thickening agent.

Glyceryl Polymethacrylate- Synthetic polymer derived from glycerin functions as a viscosity adjuster

Glyceryl Stearate: A monoester of glycerine and stearic acid. An emollient and emulsifier.

Glycine- An amino acid, one of the 20 building blocks of protein. A nonessential amino acid, glycine is part of many proteins, participates in purine synthesis, and is a neurotransmitter. is a nonessential amino acid used by the body to build proteins.

Glycol Stearate: The monoester of ethylene glycol and stearic acid. An emollient and an emulsifier used in lotions and shampoos to achieve a pearling effect.

Glycolic acid -

Grapefruit Seed Extract-Anti-Oxidant

H

HEDTA (Hydroxyethyl Ethylenediamine Triacetic Acid): A bonding agent.

Hexadecanol- Flavoring Agent.

Honey: Used as a color, flavor, and emollient. Natural ingredient for cosmetic products.

Horsetail Extract: Obtained from the plant *equisetum arvense*, known for its soothing, regenerating properties as well as its toning and astringent qualities. Commonly believed to stop bleeding and heal wounds.

Hyaluronic Acid - A potent humectant that absorbs moisture from the air to help hydrate your skin. A viscous mucopolysaccharide used as a humectant.

Hydrogenated Soybean Oil: The end product of controlled hydrogenation of soybean oil, the oil obtained from soybeans by extraction or expression. It consists essentially of oleic, linolenic and saturated acids. Emollient.

Hydrogenated Vegetable Oil: Vegetable oil thickened through hydrogenation. Increases the stability of the oil while retaining the protective emolliency.

Hydrolyzed Wheat Protein: Wheat oligosaccharides. Hydrolysate of wheat protein. Non-animal source of protein for shampoos and conditioners and other cosmetic preparations.

Hydroxyethyl Cellulose: A naturally derived polymer which helps modify viscosity and form gels with water-soluble ingredients. Helps protect the skin and impact a certain feel.

I

Imidazolidinyl Urea: A by-product of human metabolism used as an anti microbial agent.

Infused Arnica Oil-Aids in vasodilation.

Inositol: Vitamin B; an emollient.

Isohexadecane- A light hydrocarbon oil which can be derived from fatty acids. Functions as an Emollient / Moisturiser / Solvent

Isopropyl Alcohol- Solvent used to reduce drying time.

Isopropyl Myristate: The ester of isopropyl alcohol and myristic acid. It spreads very easily and promotes a dry feeling.

Isopropyl Palmitate: The ester of isopropyl alcohol and palmitic acid. Spreads more readily than isopropyl myristate.

Ivy: A mild irritant botanical believed to stimulate blood circulation to the areas on which it is applied and known for its toning and tightening properties.

J

Jojoba Oil: Extracted from the seeds of the desert shrub *simondsia chinensis* this oil is actually an emollient ester with excellent spreading, lubricating and penetrating properties. Excellent for hair and scalp conditioning and said to be useful in oily skin preparations.

K

Kaolin- A naturally occurring clay mineral which is inert and harmless.

Kiwi Extract: Extract of the tropical kiwi fruit. Natural additive.

Kojic acid - inhibits the catecholase activity of tyrosinase, which is the rate-limiting, essential enzyme in the biosynthesis of the skin pigment melanin.

L

Lactic Acid- Is a superior exfoliant, but may be one of the best treatments yet for hyper-pigmentation. Lactic Acid is another Alpha Hydroxy Acid, like Glycolic Acid, but the 50% strength is a little stronger than the Glycolic Acid Peels but less irritating to the skin than Glycolic Acid. Lactic Acid occurs naturally in the skin and is a primary component of the skin's natural moisturizing factor. The use of Lactic Acid will help to stimulate and speed skin cell turnover on the surface of the skin, thereby producing more vibrant and smoother-looking skin.

Laneth-10 Acetate: The polyethylene glycol ether of lanolin alcohol with an average ethoxylation value of 10. Lanolin derived emulsifier.

Lanolin: A refined derivative of the unctuous fat-like sebaceous secretion of sheep. It consists of a highly complex mixture of esters of high molecular weight aliphatic, steroid or triterpenoid alcohols and fatty acids. Obtained from the wax found on sheep's wool; refined and purified to cosmetic specifications. Excellent emollient, skin lubricant and protectant, capable of absorbing water in an amount equal to 50% of its weight. Rich in cholesterol and other skin-friendly sterols.

Lanolin Alcohols: Distilled and deodorized solid with excellent emolliency to skin and hair. Contains up to 30% cholesterol and related sterols.

Lauramide Diethanolamide (DEA): A mixture of ethanolamides of lauric acid. A high foaming surfactant for shampoos, bubblebaths, etc.

Laureth-7- Alkoxylated Alcohol. Surfactant & Emulsifying Agent.

Laureth-23: An emulsifier. The polyethylene glycol ether of lauryl alcohol.

Lauroamphocarboxylglycinate: Mild, foaming surfactant for shampoos and facial cleansers. An amphoteric organic compound.

Lavender oil - One of the most useful and safe of all the oils. It has strong antiseptic properties. It is a cytophylactic - (stimulates cell growth), a sedative and a calmative.

Lecithin: Naturally occurring phospholipid derived from soybeans. Both water and oil loving, lecithin helps protect the skin and replenish the acid mantle as well as improve the skin's feel after application.

Lemon oil - Extracted from the Citrus limonum (a.k.a. Citrus Limon) from the Rutaceae family and is also known as cedro oil (which refers to terpeness oil) and is pressed from the outer rind of lemons and is used in specialized skincare products. Lemon oil acts as a very mild bleach, which enables it to brighten dull skin color and calm redness in irritated and inflamed skin. It is also a natural astringent, antiseptic, and bactericide with the ability to stimulate the white corpuscles that defend the body. The essential oil is used to regulate and control fluid

accumulation and to bring balance to fluids in skin cells. Lemon also balances the pH of the skin by counteracting acidity on its surface.

Lidocaine- Anesthetic (pain blocker).

Lidocaine Hydrochloride- Topical Anesthetic.

Lipase- is an enzyme that hydrolyzes lipids, the ester bonds in triglycerides, to form fatty acids and glycerol.

Liposomes- Microscopic spherical vesicles that form when phospholipids are hydrated. When mixed in water under low shear conditions, the phospholipids arrange themselves in sheets, the molecules aligning side by side in like orientation, "heads" up and "tails" down. These sheets then join tails-to-tails to form a bilayer membrane which encloses some of the water in a phospholipid sphere. Typically, several of these vesicles will form one inside the other in diminishing size, creating a multilamellar structure of concentric phospholipid spheres separated by layers of water.

Lysine: An amino acid, one of the 20 building blocks of protein. A dietary essential amino acid, lysine is present in many proteins and is necessary for optimal growth in childhood.

M

Macademia Nut Oil: Extract of macademia nut. Natural additive.

Magnesium Citrate: Magnesium salt of citric acid. Used in hair sets or bodying agents.

Menthol- A crystalline alcohol that occurs especially in mint oils. Has the sharp fragrance and cooling properties of peppermint.

Methyl Gluceth: A humectant valuable in eliminating dry skin; less tacky than other humectants.

Methyl nicotinate- Categorized as a vasodilator. Vasodilation (dilation of blood vessels), erythema (redness) and an increase in skin temperature occur with application. Changing the concentration will not change the rate of absorption, but will increase the intensity of the reaction.

Methylparaben: Water-soluble anti-microbial agent. One of the most commonly used preservative in cosmetics today.

Methylsulfonylmethane (MSM)- A stable metabolite of DMSO, presents a dramatic improvement over what had previously been available. MSM is an odorless, virtually tasteless, white crystalline substance. The key portion of MSM is the sulfur component. Sulfur is necessary for the proper formation of proteins. One of the essential components in all life forms, sulfur is involved in amino acid production, connective tissue, skin, hair and nails, (in animals, hide and hooves,) enzymes, hormones and immunoglobulins. MSM, which contains 34% bio-available sulfur by weight, is found naturally in many foods (fresh meat, fish, milk, various vegetables and plants), but is volatile and lost with even the mildest processing. For example, this was noted in animal diets because MSM is present in measurable quantities in alfalfa, a legume forage for animals, but it is almost non-detectable in dried hay. Similar deficiencies are noted in most processed foods for humans.

Mineral Oil: A liquid blend of hydrocarbons obtained from petroleum. An effective solvent for removing oil, grease and make-up from the skin. An excellent amplifier or intensifier allowing the

skin to absorb ultraviolet rays more effectively. Most companies no longer use mineral oil in products; vegetable oils have been found to be as effective and more skin friendly.

Mink Oil: An oil similar to human sebum; this oil is obtained from the subdermal fatty tissue of minks. It has soothing, amplifying, conditioning, and protective properties, making it an important component of dry skin products. High in unsaturated triglycerides, mink oil has tremendous spreading capabilities.

Modified Sea Salts: Sea salts obtained by evaporation of sea salts.

Myristic acid-fatty acid.

Myristyl Myristate: Ester of myristyl alcohol and myristic acid. Esters are light oils used as cosmetic emollients.

Myrrh Oil- essential oil is a strong antiseptic and fights viral and fungal infections

N

N-Acetyl-LTyrosine: A source of soluble tyrosine.

Neem Extract/ MeliaAzadirachta- Obtained from extraction of bark and leaves of the neem tree known to help promote circulation. Also used as antibacterial.

Nettles: Coarse herbs known for their tonic, astringent and revitalizing properties.

Nettle Extract (White): Obtained from the flowers of *lamium album* and containing tannins, amino acids and flavonoids. Known for its tonic, astringent and revitalizing properties. Used both in skin care and hair care preparations.

Nettle Root Extract (Urtica dioica)- contains phytosterols that produce a powerful anti-inflammatory.

O

Octylcrylene- UVB Filter.

Octyl Methoxycinnamate: The ester of 2-ethylehexyl alcohol and methoxycinnamic acid. A non-PABA sunscreen agent manufactured in Switzerland.

Octyl Palmitate: An emollient amplifying ester commonly used as a mineral oil replacement.

Octyl Salicylate: Ester of 2-ethylhexel alcohol and salicylic acid used as an antiseptic and sunburn preventative.

Octyl Stearate: Derived from cascarilla bark and other natural items; provides a barrier between skin and the elements; softens and smooths the skin.

Olive Oil: Extract of olive. Emollient. Superior penetrating ability. Used in lipsticks, hairdressings, shampoos, soaps and conditioners.

P

PABA (Para Amino Benzoic Acid): A vitamin B complex acid used as a "building block" in sunscreens. Tremendous UVB absorption qualities.

Padimate O (Octyl Dimethyl PABA or 2-Ethylhexyl PABA): The ester of 2-ethylhexyl alcohol and dimethyl paminobenzoic acid. A "PABA-free" sunscreen, Padimate O is a derivative of PABA, but is no longer PABA.

Palmitoyl Oligopeptide (Palmitoyl Pentapeptide)- a relatively small molecule (five amino acids linked together and attached to a fatty acid) structurally related to the precursor of collagen type I (a.k.a. procollagen type I).

Panax Ginseng - Ginsenosides from *Panax ginseng* enhance neurogenic vasodilatation of the corpus cavernosum; and this appears to be mediated by the release of nitric oxide from endothelial cells and perivascular nerves.

Panthenol: A biologically active substance that metabolizes to vitamin B5 in the skin. Known for its revitalizing and conditioning effects in the hair and skin. It has humectant-like properties that promote moisture absorption.

Papain- A proteolytic enzyme that specifically hydrolyses proteins such as collagen (a protein found in skin). Papain "softens" and digests the protein components of the intercellular matrix. Papain has been shown to be highly effective at promoting turnover of the stratum corneum.

Parsley: *Petroselinum sativum*. Soothes skin.

PEG (Polyethylene Glycol or Polyoxyethylene Glycol): Polymeric forms of ethylene oxide. An organic configuration that is reacted with various other molecules to produce a wide range of cosmetic materials. Higher numbers mean higher ethoxilation, which usually means higher solubility in water. (PEG-75 Lanolin has protective and emollient properties, while PEG-20 Stearate is an emulsifier.)

PEG-7 Olive Oil Esters- Is soluble in many oils both of vegetal and mineral origin, it can be dispersed in liquid fatty alcohols and in synthetical esters from fatty acids. It is completely odorless, clear, pale yellow; its low acidity value makes it compatible even with the most delicate active principles.

PEG-80 Sorbitan Laurate: An ethoxylated sorbitol monoester of lauric acid with an average of 80 moles of ethylene oxide. A mild surfactant.

PEG-100 Stearate: Derived from stearic acid. Emulsifier for creams and lotions.

PEG-20 Stearate: A water soluble emulsifier for triglycerides, waxes, and mineral oils.

PEG-150 Distearate: Form stabilizer; hair and skin conditioner.

Peppermint Oil: Obtained from peppermint leaves. Mild anesthetic, or flavoring material.

Petrolatum: Petroleum derived, inexpensive substance used to prevent moisture loss. Tends to feel tacky.

Phenoxyethanol- Derived from Rose Ether, safe anti-bacterial preservative.

Phenylbenzimidazole Sulfonic Acid -UVB filter.

Phenylephrine Hydrochloride- When applied directly to the skin, it causes the constriction of blood vessels in the mucous membranes, resulting in their shrinkage; this promotes drainage, thus improving ventilation and relieving puffiness.

Phospholipids: Complex fatty materials found in all living cells. Emollient, antioxidant, natural emulsifiers, spreading agents.

Phosphoric Acid: An inorganic acid; a pH adjuster.

Phosphatidylcholine- precursor to the intracellular messenger molecules diacylglycerol & ceramide. The source of choline in phosphatidylcholine is a precursor for acetylcholine an important neurotransmitter involved in muscle control, memory and many other functions.

Phytoestrogens- Also called Isoflavones, plant-based chemicals that mimic the effects of estrogen in the body.

Pineapple Extract: Contains the protein digesting and blood clotting enzyme bromelain, anti-inflammatory.

Planell Oil: Emollient. A mixture of naturally derived phytosterols and glycolipids.

Poloxamer 407: Non-ionic polymer surfactant.

Polyacrylamide- a water-absorbing polymer.

Polymethyl Methacrylate (PMMA)- is a suspension of microscopic synthetic polymer beads (microspheres).

Polyquaternium 7: Conditioner used in both rinse-off and leave-in conditioner preparations.

Polyquaternium 51- Used as an antistatic agent, film former, hair fixative.

Polysorbate 20: A mixture of laurate esters of sorbitol and sorbitol anhydrides, consisting of monoester, condensed with approximately 20 moles of ethylene oxide. It is a versatile oil-in-water emulsifier, very water-soluble, and a solubilizer for essential oils, fragrances and vegetable oils in aqueous solutions. It is also a viscosity modifier in shampoos, liquid soaps and conditioners.

Polysorbate 80- Synthetic compound derived from sorbitan, which can be manufactured by chemically modifying glucose. Function as an Emulsifier / Surfactant / Viscosity adjuster

Potassium Sorbate- A preservative that is the potassium salt of sorbic acid. It is highly soluble in water it effectively reduces yeast and molds.

Proline: An amino acid, one of the 20 building blocks of protein. A dietary nonessential amino acid, a major constituent of collagen.

Propylene Glycol: An aliphatic alcohol serving as an humectant in skin products and a solvent for preservatives, essential oils, flavors and fragrances. Also used in preparation of herbal extracts.

Propylene Glycol Stearate: As ester of propylene glycol and stearic acid. Used in creams, lotions, hair care products and makeups as co-emulsifier to produce a pearly opaque effect.

Propylparaben: Common cosmetic preservative that is anti-fungal and anti-microbial. Less water soluble than methylparaben.

Protovanol: A concentrated form of vanilla used as a natural tanning accelerator. Requires heat and light to drive it.

Purified Water: See deionized water.

Pygeum Bark (pygeum africanum): species of evergreen tree contains phytosterols, reduce inflammation, triterpenoids which can reduce swelling, esters of fatty alcohols.

Pyridoxine HCl-Helps maintain balance of sodium and potassium, which regulate body fluids and promote normal functioning of the nerves.

Q

Quaternium-15 & 19: A preservative active against a wide spectrum of microbial organisms. A quaternary ammonium salt.

Quaternary Ammonium Salts (QUATS): Various derivatives in this group are used in waterproof sunscreens because they impart cationic properties to compounds. QUATS chemically react with the skin, making lotions they are in more water resistant.

R

Red Clover Flowers: A skin soothing ingredient.

Red Raspberry Leaves: Leaves of the red raspberry, *rubus idaeus*. Astringent.

Retinyl Palmitate: Vitamin A. Useful in cosmetics as a skin normalizer. Works to moisturize dry skin and reduce excess oil.

Riboflavin: Vitamin B2. Works with soluble tyrosine in suntan-enhancing products. Believed to accelerate tyrosine in tanning products. Produces a characteristic yellow color in lotions.

Rosemary Extract: Valued for its reviving, blood vessel-widening, and invigorating properties.

S

Safflower Oil: An emollient oil with a high content of unsaturated fats, making for ease of penetration.

Sage Extract: Oil of the herbal plant *salvia officinalis*-. Smells like camphor. Astringent. Supposedly has healing powers. Used by some to prevent drying.

Salicylic Acid: Occurs naturally in wintergreen, sweet birch and other plants. Anti-microbial. Keratolytic properties, softens skin and hair. Used in making aspirin.

Saw Palmetto extract (Serenoa repens)- berry of this herb contains an oil composed of lipid sterols and various fatty acids.

Sea Kelp: Ahnfeltia extract. The calcined ashes of seaweeds, from which iodine is obtained; a large, coarse seaweed or wrack. Skin soother.

Sea Wrack: Seaweed cast ashore.

Selenium Protein Complex (Biomim S-P-C): Neutralizes free radicals on the skin, which is thought to minimize the aging effects of the sun. Also serves as a counter irritant.

Selenomethionine- Functions primarily as a component of the antioxidant enzyme glutathione peroxidase, which works with vitamin E in preventing free radical damage to cell membranes. Selenium's chief beneficial effect stems from its role as an antioxidant. Specifically, selenium in the form of selenocysteine is incorporated at the four active sites of the enzyme glutathione peroxidase. This enzyme assumes a critical role in protecting against free-radical and oxidative damage.

Sesame Oil: A light, emollient oil obtained from sesame seeds.

Shea Butter: A natural lipid obtained from the fruit of the karite tree, *butyrospermum parkii*. The slightly greenish butter with soothing protecting qualities is said to have some sunscreensing ability.

Silk- An effective moisturizer that helps strengthen the skin's elasticity.

Silk Amino Acids: The mixture of amino acids resulting from the complete hydrolysis of silk. The principal amino acids contained within are glycine, alanine, and serine. Their low molecular weight indicates that the molecules can penetrate the cuticle in undamaged hair as well as the surface layer of the epidermis. Silk amino acids improve skin and hair with regard to feel and gloss, and have a moisturizing effect due to their water-binding properties.

Slippery Elm Bark: The dried inner bark of *ulmus fulva* Used for its soothing and softening properties. A product of the North American elm tree.

Sodium Acrylate/Acryloyldimethyl Taurate Copolymer- Film-forming/water-binding agent.

Sodium Acryloyldimethyltaurate Copolymer - Emulsifier/thickening/stabilizing agent.

Sodium Bicarbonate- Inorganic salt used as an abrasive, buffering agent, deodorant agent, oral care agent, pH adjuster, skin protectant

Sodium C14-16 Olefin Sulfonate: Surfactant derived from coconut oil. Used in "soapless" shampoos. Mixture of long chain of surfactant salts.

Sodium Chloride: A purified salt used for its natural cleansing, toning, refreshing, and astringent properties.

Sodium Hydroxide- Buffering Agent.

Sodium Laureth Sulfate: The sodium salt of sulfated ethoxylated lauryl alcohol. A high foaming, viscous surfactant, milder to the skin than sodium lauryl sulfate. Excellent cleansing agent for shampoos.

Sodium PCA: A sodium salt of 2-pyrrolidone-5-carboxylic acid, a natural moisturizing factor component. A humectant and emollient. Holds several times its weight in water.

Sodium laureth-13 Carboxylate: An anionic surfactant increasing the cleansing power of some shampoos.

Sodium Saccharin: Artificial flavoring, sweetener. Non-caloric. Pound for pound, 300 times sweeter than sugar. Used in mouthwash, denitrifies, lipsticks.

Sodium Trideceth Sulfate: A sodium salt of sulfated ethoxylated tridecyl alcohol. An excellent wetting agent for shampoo preparations, as well as baby shampoos.

Sorbitan Isostearate: Used as an emulsifier of essential oils in lotion products. Thickens and stabilizes emulsions.

Sorbitol: A polyol (*sugar alcohol*), bulk sweetener, humectant that leaves skin with a velvety feeling. Derived from fruits, seaweed, and algae.

Squalane: A saturated branched chain of hydrocarbon obtained from hydrogenating shark liver oil. It is found in small quantities in human sebum. A natural emollient; very spreadable and soothing to the skin.

Stearamonium Chloride: Quaternary ammonium compound. Used in hair conditioners. Conditioner.

Stearamidopropyl Dimethylamine: An amidoamine. Conditioner.

Stearic acid: A common, naturally occurring fatty acid widely used as an inexpensive primary emulsifying agent. When neutralized with triethanolamine, it functions as a tremendous thickening agent. Its soap-like character enables it to penetrate the skin and to have emollient, skin-softening properties.

Stearyl Alcohol: An emulsion stabilizer; also adds body to a lotion.

Sunflower Oil: Obtained from sunflower seeds. Bland, pale yellow oil that contains large amounts of Vitamin E. Natural oil.

Super Oxide Dismutase (SOD)-A powerful enzyme and cellular anti-oxidant that acts as a super-scavenger of dangerous free-radicals by ferreting out and destroying them throughout the body.

Sweet Almond Oil: The fixed oil obtained from the ripe seed kernel of *prunus persica dulcis*. Emollient.

T

TEA (Triethanolamine): Produced by ammonolysis of ethylene oxide. Neutralizes carbomer solutions to form gels. Neutralizes stearic acid to form anionic emulsions and acts as an alkalizing agent to control pH.

Tea Tree Oil/ Melaleuca Alternifolia -Natural Antiseptic/Anti-Bacterial

Tetrasodium EDTA: Water softner. A bonding agent that links with minerals to prevent them from causing microbial growth.

Titanium Dioxide (TiO₂): An inorganic oxide occurring in nature, brilliant white in color with many times the covering power of zinc oxide. Used as a colorant (opacifier) and absorbant.

Tocopherol Acetate: The ester of tocopherol and acetic acid. See Vitamin E.

Tocopheryl Acetate: Vitamin E acetate. See Vitamin E.

Tocopheryl Linoleate: A substance that helps prevent stiffening of the stratum corneum as a result of UV exposure. Provides the skin with linoleic acid, one of the major essential fatty acids.

Tocopheryl Nicotinate: Increases blood supply at the skin's surface without irritation.

Trehalose - Is composed of two glucose molecules, is metabolized in an identical manner as other disaccharides (sucrose, maltose and lactose). Trehalose has been reported to be the most effective sugar for stabilizing proteins against damage caused by desiccation or freezing.

Tribehenin- Imparts high gloss; Gives smooth application; pleasant feel; Used as suspending and thickening agent.

Tyrosine: The amino acid from proteins that is converted through several metabolic steps to melanin. It is added to tanning accelerator products to supplement the body's normal level of tyrosine at the skin's pigment cell level thereby speeding the tanning process. May be used in its natural form or in a modified, more water solubler form as acetyl tyrosine.

U

Unitrienol T27: A patented blend of fernesyl acetate, fernesol, and panthenyl triacetate which helps in the regulation of moisture and oil levels in the skin while promoting elasticity. Studies show that unitrienol reduces the appearance of wrinkle depth.

Urea- A water-soluble compound, that is the major nitrogenous end product of protein metabolism and is the chief nitrogenous component of the urine in mammals and other organisms. It is regarded as a true moisturizer rather than a humectant, since it attracts and retains moisture in the corneum layer of the skin.

V

Vanillin: A natural tanning accelerator that reacts with skin proteins under the influence of heat and light to produce a tan.

Vegetable Oil (Hydrogenated): obtained from soybean and cotton. Edible, natural moisture binders.

Vitamin A: An ingredient used for its regenerating properties.

Vitamin D: Soothes skin; has corrective qualities; an excellent skin nutrient.

Vitamin E (in its synthetic form, Tocopherol Acetate): A natural moisture binder that allows the skin to breathe and function naturally. Believed to have natural healing qualities.

Vitamin E Linoleate: A deep moisturizing vitamin derivative that - "plumps" underlying skin cells and helps reduce the appearance of wrinkles.

W

Walnut Extract - bronzing agent that creates a natural-looking tan color.

Walnut Leaf Extract: Obtained from the leaves of *juglans spp.* and used for its astringent and conditioning properties.

Walnut Oil: A medium-light oil that leaves a luxurious, silky feel on the skin.

Watercress Extract: Extract from *nasturtium officinalis*. Natural additive.

Wheat Germ Oil: A rich source of vitamin E that smooths the skin and serves as an anti-oxidant.

Wheat Oligosaccharides: Polysaccharide, derivative of wheat. Conditioner for hair and skin. A moisturizer.

Wild Yam (Dioscorea Villosa) Root Extract - A plant-derived phytoestrogen.

Witch Hazel: Obtained from twigs of *hamamelis virginiana*. Skin freshener, astringent.

X

Xanthan Gum- is a normal powder produced by fermentation of carbohydrate with *xanthomonas campestris*, specially used in pharmaceutical and cosmetic applications as stabilizer, thickener or emulsifier.

Xylitol – sweetener.

Y

Yeast Extract: Obtained from yeast, this derivative is a popular constituent of oily skin preparations.

Z

Zinc Oxide: A compound of zinc and oxygen, zinc oxide is a mild antiseptic agent. When added to sunscreens, it physically prevents UV light from reaching the skin.