

Basic Cosmetic Chemistry Vocabulary List & Facts

1. Absolute - an extraction method using a solvent (hexane) to extract the essence
2. Adulteration - the process of adding natural or synthetic compounds, or cheaper but similar oils, to "stretch" or alter the fragrance of an essential oil.
3. Chelating agent - A chemical added to cosmetics to improve the efficiency of the preservative.
4. Cleansers - Soaps and detergents that clean the skin. Alkaline and fatty acids of oils or soaps are combined to make soaps. Cleansers clean the skin of excess oils, dirt, and debris left over from the day
5. Cleansing Cream - Oil-based emulsion used to dissolve makeup and dirt. Cold cream is a good example of cleansing cream as it removes makeup very well
6. Cleansing Lotion - Water-based emulsion for normal and combination skin. These types of cleansers are better suited for dehydrated skin
7. Comedogenicity - Tendency of any topical substance to cause or to worsen a buildup in the follicle, leading to the development of a comedone (blackhead).
8. Colorants - Substances such as vegetable, pigment, or mineral dyes that give products color. Some colorants affect the skin's pH balance.
9. Cosmeceuticals - Products intended to improve the skin's health and appearance.
10. Delivery systems - Systems that deliver ingredients to specific tissues of the epidermis
11. Detergents - Type of surfactant used as cleansers in skin care products
12. Dilution amount - the amount, usually defined as a percentage, to which essential oils are diluted in a formula when added to a cream, oil, or perfume blend.
13. Distillation - (1) a process that removes mineral and trace elements from the water; (2) a process used to extract essential oils from a plant using hot water, hot water and steam, or steam
14. Emollients - These lie on the surface of the skin to prevent water loss; also fill in the lines of dry and dehydrated skin; soften and soothe the skin. Emollients draw in and trap water to the superficial layers of the skin giving it a softer more youthful appearance.
15. Emulsifiers - Used as stabilizers such as an ingredient that helps oil and water mix. Some emulsifiers cause contact dermatitis to sensitive skin.
16. Esterification - the process of creating an ester.
17. Expeller-pressed - describes a mechanical process used to "press" the oil from seeds, nuts, or plant material.
18. Face wash - Detergent-type foaming cleanser with a neutral or slightly acidic pH. Face washes are used to remove dirt, debris, and oils from the face.
19. Fragrances - These give products their scent. Fragrances are fairly safe and only cause irritation to the skin.
20. Fatty Acids - Lubricant ingredient derived from plant oils and animal fats. Fatty acids are thought to reduce sun sensitivity.
21. Fatty Alcohols - Fatty Acids that have been exposed to hydrogen. Fatty alcohols may

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irritate sensitive skin.
22. Fatty Esters – Emollients produced from fatty acids and alcohols. Many fatty esters also serve as vehicles as well.
23. Fresheners - Skin freshening lotions. Antibacterial, anti-inflammatory and a stimulant. Helpful for couperose skin. Products with fresheners may be helpful for those with inflammatory conditions such as psoriasis.
24. Free acid - acid molecules that have not been neutralized.
25. Functional ingredients - Ingredients in cosmetic products that allow the products to spread, give them body and texture, and give them a specific form such as a lotion, cream, or gel. Preservatives are also functional ingredients.
26. Humectants - Ingredients that attracts water. Humectants draw moisture to the skin and soften its surface, diminishing lines caused by dryness. Glycerin is a humectant used in creams and lotions. Humectants use osmosis to draw moisture out of the air and into the skin
27. Hydrators - Ingredients that attract water to the skin's surface.
28. Hydrophilic Agents - Ingredients that attract water to the skin's surface.
29. Hydrosol - the water portion, or by-product, of essential oil distillation; it is used for aromatherapy purposes.
30. In vitro - in the laboratory as opposed to in a living organism.
31. In vivo - in a living organism as opposed to in a laboratory.
32. Isolates - compounds that are isolated from a plant extract and have an active therapeutic
33. Lakes - Insoluble pigments made by combining a dye with an inorganic material
34. Lipids - Component of a serum that helps a serum penetrate deeply into the skin. Lipids are essential for helping the skin retain moisture.
35. Liposomes - Lipids used for microencapsulation delivery systems; hollow spheres made of lipids that are used to transport other agents, such as antioxidants, into the skin. Liposomes in conjunction with lipids work to keep the skin hydrated.
36. Lubricants - Coat the skin and reduce friction. Mineral oil is a lubricant. If the skin encounters too much friction it will become rough and calloused.
37. Moisturizers - Products formulated to add moisture to the skin.
38. Natural ingredients - ingredients found in nature, such as plants, minerals, and water.
39. Neutralization the result of a chemical process that brings a formulation's pH to 7 or neutral on the pH scale. Partial neutralization occurs when a chemical product is added to the formulation to move the compound up or down the pH scale toward 7.
40. Noncertified colors - Colors that are organic, meaning they come from animal or plant extracts; they can also be natural mineral pigments.

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41. Nonvolatile - does not evaporate easily.
42. Oil soluble - Compatible with oil.
43. Organic ingredients - ingredients derived from an agricultural product that has been produced, handled, and processed under the guidelines of the U.S. Department of Agriculture's National Organic Program.
44. Performance ingredients - Ingredients in cosmetic products that cause the actual changes in the appearance of the skin.
45. pH adjusters - Acids or alkalis (bases) used to adjust the pH of product
46. Polyglucans - Ingredients derived from yeast cells that help strengthen the immune system and stimulate the metabolism; also hydrophilic and help preserve and protect collagen and elastin
47. Polymers - Chemical compounds formed by combining a number of small molecules (monomers) into long chain-like structures; advanced vehicles that release substances onto the skin's surface at a microscopically controlled rate.
48. Polymerization - the process of creating a polymer. Polymers are large molecules constructed of smaller molecules of the same substance
49. Polyphenols - a group of chemicals that act as antioxidants
50. Potassium hydroxide - Strong alkali used in soaps and creams
51. Preservatives - Chemical agents that inhibit the growth of microorganisms in cosmetic formulations. These kill bacteria and prevent products from spoiling.
52. Rectified - the result of redistilling essential oils to remove color and unwanted compounds
53. Refined - describes a plant extract, usually referring to a fixed oil, which has gone through the process of removing colors, odors, or other naturally occurring compounds, such as a refined grapeseed oil.
54. Neutralization - the result of a chemical process that brings a formulation's pH to 7 or neutral on the pH scale. Partial neutralization occurs when a chemical product is added to the formulation to move the compound up or down the pH scale toward 7.
55. Micelles - Molecules such as when soap is added to water, and they become electrically charged. Cleansers with micelles are thought to be more thorough because they destroy molecules left on the skin
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57. Organic ingredients - ingredients derived from an agricultural product that has been produced, handled, and processed under the guidelines of the U.S. Department of Agriculture's National Organic Program.
58. Moisturizers - Products formulated to add moisture to the skin. Moisturizers come in various forms to suit the different skin types.
59. Mucopolysaccharides - Carbohydrate-lipid complexes that are also good water binders. Mucopolysaccharides aid in keeping water mixed in with the product.
60. Olfactory System - Gives us our sense of smell, which is the strongest of the five

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senses.
61. Parabens - One of the most commonly used groups of preservatives in the cosmetic, pharmaceutical and food industries; provide bacteriostatic and fungistatic activity against a diverse number of organisms and are considered safe for use in cosmetics. Parabens are found in almost every type of skin care product because it improves the shelf life of products.
62. pH Adjustors - Acids or alkalis (bases) used to adjust the pH of products.
63. Preservatives - Chemical agents that inhibit the growth of microorganisms in cosmetic formulations. These kill bacteria and prevent products from spoiling. Preservatives extend the life of products but in large amounts can cause skin irritation.
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65. Propylene Glycol - A humectant often used in dry or sensitive skin moisturizers. Propylene glycol is deemed safe by the FDA and at the most can just cause contact dermatitis.
66. Quaternium 15 - An all-purpose preservative active against bacteria, mold and yeast. It is probably the greatest formaldehyde releaser among cosmetic preservatives, causing dermatitis and allergies. This chemical in large amounts can cause contact dermatitis
67. Serums - Concentrated liquid ingredients for the skin designed to penetrate and treat various skin conditions. Serums are wonderful for dry skin because it penetrates the deeper layers of the skin.
68. Silicone - An emollient that leaves a protective film on the surface of the skin. Silicone can also be used to help products slide more easily across the skin.
69. Sodium Bicarbonate - Baking soda; an inorganic salt used as a buffering agent and a pH adjuster. It is alkaline. Used in skin smoothing powders. It also serves as a neutralizer. Several home remedies include baking soda, especially for those involving acne
70. Solvents - Substances, such as water or alcohol, that dissolve other ingredients. Water is a common solvent used in skin care products.
71. Sorbitol - Humectant that absorbs moisture from the air to prevent skin dryness. Sorbitol uses osmosis to pull moisture into the skin.
72. Surfactants - Chemicals in cosmetic formulations that allow the cosmetic to be able to slip across or onto the skin. Surfactants are commonly used in foaming cleansers and soaps to help the product foam and slide easier across the skin.
73. Supercritical carbon dioxide (CO₂) - a modern method of extraction in which the plant material is placed in a high-pressure container with CO ₂ that is in a state midway between being a liquid and a gas
74. Synergy - two or more agents working as a cooperative whole, producing a result that is greater than the total effect of the individual parts.
75. Thickeners - Ingredients used in products to increase consistency and volume of the product Thickeners are often found in thick skin creams meant for moisturizing.
76. Vehicles - Spreading agents and other chemicals necessary to formulate a cosmetic. Mineral oil is a very good example of a vehicle.

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77. Water - This is a transparent colorless tasteless fluid needed by plants and animals to live and in almost all skincare products. Water is very essential to having healthy smooth skin.

78. Water soluble - Mixable with water

