

# The Perfumer's Vocabulary

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PERFUME-FLAVOR CONSULTANT

**P**erfumery has acquired a specialized vocabulary covering the various situations and effects peculiar to the creation and evaluation of the fragrances. Although most of the words used are familiar, they often have a special, exclusive meaning when applied to fragrances. Therefore, the following glossary of the principal terms of perfumery has been prepared.

**Acid**—A pungent odor, usually with a "metallic" reaction in the back of the nose. Acidity is partially associated with the sense of taste, as the metallic reaction noted arises in an area close to the taste buds. The acid note often appears when there has been an excessive use of the aliphatic aldehydes in the presence of esters. Citral and aldehyde C-9 are frequently offenders in this respect.

**Animal**—A typically "body" odor, repulsive yet attractive. Civet, Tonquin musk, and castoreum are natural isolates of animal origin, which classically demonstrate this odor quality. None of these materials alone is attractive to the layman's sense of smell. Yet they all play highly important parts in the development of attractive fragrance compositions. Among the essential oils of vegetable origin, ambrette-seed oil displays a musk-like animal character. Among the synthetics indole, skatole and tetrahydro-para-methyl-quinoleine demonstrate effects comparable to civet. To a lesser degree this also applies to phenylacetic acid and its methyl ester. The benzoic esters (methyl in particular) and the ethers and esters of para-cresol also have some measure of the animal characteristic.

**Balance**—A fragrance whose components have been so carefully blended together that no one aromatic body or effect is readily identifiable is said to be "in balance".

**Balsamic**—A quality best described as the combined sweetness and woodiness associated with fresh-cut, well-seasoned, nonconiferous wood, as for example maple. Among the essential oils, balsam of Tolu or balsam of Peru illustrate this quality. Penylethyl cinnamate is an aromatic chemical having balsamic

characteristics. The balsam effect is most frequently encountered in the Oriental fragrances.

**Bitter**—An effect described as a metallic "greenness" completely devoid of any sweetness. This effect is difficult to describe, but it can be vividly demonstrated by an examination of oil of galbanum.

**Body**—The opposite of "thin". Body in perfumery is analogous to a symphony orchestra playing with the full complement of instruments. The expression, "This fragrance is too thin; it needs to be bodied," often used in the perfume trade implies that aromatic materials such as one or more of the essential floral oils should be added to produce additional overtones and color. Unfortunately, this is a rather costly procedure.

**Camphoraceous**—An odor resembling camphor to some degree. The essential oil spike lavender is a good example of a common aromatic material with a camphoraceous note. Among the synthetic chemicals the material "C-64" (Dow Chemical Company) has a distinctly camphoraceous note but with interesting nuances reminiscent of patchouli oil.

**Chemical**—An adjective used to describe either a complex fragrance or a single aromatic product which has an odor that cannot be utilized. Commercial toluol is such a product, for it has a strong odor which is certainly neither attractive nor, on the other hand, repulsive like indole. Nevertheless, toluol simply fits nowhere in the fragrance category of useful perfumery. A fragrance oil compounded with too few aromatic materials held in improper balance often possesses an odor that can be best described as "chemical".

**Cloying**—A word usually used to describe excessive sweetness in a fragrance. Excessive use of vanillin in a composition is a common cause of cloying. Cloying also describes a surfeiting of an odor effect, as illustrated by the chemical isoeugenol. The sweet carnation-like effect of isoeugenol is so intense that it must be contrasted with its isomer eugenol in order to obtain a satisfactory reproduction of the carnation note.



COURTESY SEVENTEEN MAG.

**Cologne**—A term derived from the French name of the German city Cologne where this product was allegedly first popularized. Originally, it was the condensate from the steam distillation of a water-alcohol infusion of citrus peels (bergamot, lemon, orange), herb leaves (rosemary, thyme, lavender), and flower petals (rose, orange blossom). With the modern advent of a wide selection of other essential oils and synthetics, this cologne was considerably altered.

Today, cologne is usually a diluted version of an extract, using aqueous alcohol (60 to 80 per cent by volume strength) as its solvent, and from one to six ounces of fragrance oil per gallon of finished product. A less expensive fragrance oil is used for a cologne than for an extract. Usually it contains a substantial amount of citrus bouquet to simulate the lightness and "lift" of the original cologne type. Shaving lotions are technically considered to be in the cologne category, but they usually have a lower fragrance oil content (one to two ounces per gallon) since their fragrance is incidental to their therapeutic properties.

Toilet waters and Floral waters are usually colognes with higher than usual concentrations of fragrance oils. Sometimes as many as twelve ounces of

fragrance oil are used per gallon of finished product. A comparatively recent development is the "solid" or "stick" cologne, which is basically alcohol solidified with soap and including emollient materials. The physical principle involved is a gel formation similar to that used in the manufacture of the canned heat packages.

**Cologne oil**—A special fragrance oil is designed for cologne production, which is a less expensive version of the costly fragrance oil used in the extract with which it is associated. The explanation for the price differential between the oils is that colognes are sold at prices disproportionate to the cost of the extract. Many perfumers try to make their cologne oils much lighter versions of the fragrance oil used in the extract, by introducing citrus oils. This kind of modification is a "must" with heavy Oriental fragrances which become lifeless when made into colognes without some "lightening" agent.

**Composition**—another word for fragrance oil preferred by Europeans because it is more descriptive of the artistry involved in the creation of a fragrance oil, and more dignified than the chemical synonym of "formula".

**Depth**—A fragrance quality achieved by the incor-  
(Continued on page 367)

double the equivalent weight of the acetylsalicylic acid present, assuring residual acid-binding capacity for the tablet.

But in the main, the editorial makes the advertising claims of perfectly acceptable analgesics the base upon which it builds a tirade against proprietary drugs which smacks of the J.A.M.A. under the early editorial days of Morris Fishbein. From the tone of the editorial, it would seem that all self-respecting lay publications, television stations and radio stations should refuse to accept proprietary drug advertising. Saying: "After radio came television, which brought the ancient medicine show to life," the editorial continues:

"Just as the credulous grandfathers of the present generation found the Indian medicine man and old Doc Jones and his cure for rheumatism convincing, so do their grandchildren find 'tired blood,' 'relieves headache twice as fast,' 'like a doctor's prescription,' and other ridiculous statements, claims, half-truths and the associated entertainment convincing to an incredible degree. Unfortunately the same factors are operating in the modern version as with the old Doc Jones show, but where the previous generation shelled out two bits to a dollar for a bottle, the grandchildren frequently shell out five dollars and not infrequently come back for more and continue to do so for months."

In a medical journal, all this makes great stuff to feed the physicians who get the magazine. However, why not face the fact that the Food and Drug Administration and the Federal Trade Commission are ever alert to misbranding and false advertising of proprietary drug products, and are quite generally considered to be enforcing their respective laws with marked proficiency. Also why not face the fact that there are practically no limitations on claims made for prescription drugs to the members of the medical profession, in the erroneous belief that all members of the profession are going to be able to evaluate these claims properly in their own practices.

We would think that it is time that medical journals of this sort stopped tilting at windmills and tried to correct some of the abuses that still exist in the medical profession.

## THE PERFUMER'S VOCABULARY

(Continued from page 307)

poration of certain "low-toned" chemicals, such as benzyl isovalerate, in a composition. This quality may be compared to the illusion of physical depth in music created by the discreet emphasis of the low tones.

The meaning of "low-toned" is further illustrated by a comparison of benzyl acetate with benzyl isovalerate. The former is light, brilliant in odor, "high-toned" as a violin; the latter is heavy, unspectacular

in odor, "low-toned" as a viol. From the viewpoint of structural chemistry it is interesting to note that the majority of materials producing this effect of "depth" are, like benzylisovalerate, the esters of longer chain aliphatic acids.

**Diffusive**—a word used to describe a fragrance whose odor spreads quickly and widely. It is a fragrance quality greatly appreciated by women, since it is sure to attract attention.

**Dry Out**—A technique used by perfumers for examining a fragrance. It involves placing a drop of the fragrance under examination on the tip of a freely suspended strip of blotting paper, and then studying the odor as the fragrance evaporates. The time of examination may run from a few hours to several days, depending upon the degree of fixation in the product under examination. The two functions of the "dry out" procedure are to study the performance and fixative powers of a fragrance being created, and to discover the components of a fragrance for matching purposes. As the more volatile components of a fragrance evaporate, the fragrance becomes unbalanced and the various residual components reveal themselves more clearly.

**Earthy**—The peculiar aroma of freshly turned soil represented in perfumery by a tincture of ambergris. Earthy fragrances have considerable appeal for a great many people. Consequently ambergris is widely applied in a variety of fragrances.

**Evanescence**—A word descriptive of a fleeting or rapidly vanishing fragrance, occurring as a "top note". Evanescence indicates poor fixation of a fragrance and is not desirable.

**Extract**—An alcoholic solution of a fragrance oil. The traditional concentration of the fragrance oil in an extract is between 12 and 32 ounces of oil per gallon of finished extract. The layman refers to the "extract" as "perfume".

**Fixative**—A material incorporated in a fragrance oil for the purpose of (1) retarding the volatilization of the fragrance oil when it is applied to a surface, so that the odor will be more persistent; (2) producing a comparatively uniform volatilization of the fragrance oil so that its fragrance does not radically change as it evaporates. Animal products (civet), natural gums (gum benzoin), high boiling essential oils (vetivert) and high boiling chemicals (benzyl salicylate) illustrate fixatives existing in the various classes of aromatic materials. Most fixatives have, to some degree, an odor of their own, which must be taken into account in the design of a fragrance oil.

**Flat**—A word descriptive of a fragrance that is lacking in distinction. A fragrance is also said to go "flat" when it is dulled by an excessive addition of certain chemicals, as for example ionone.

**Flowery**—Possessing a fragrance resembling a  
(Continued on page 382)

# Trade Literature

## Dow Research Chemicals

Research Chemicals from Dow, a new 40-page booklet, lists some 160 chemicals available in sample lots from The Dow Chemical Company, Technical Service and Development, Midland, Michigan. A substantial portion of the chemicals listed are being offered for the first time. Chemicals described are inorganics, saturated and unsaturated aliphatics, aromatics, and heterocyclics.

## Methyl Acetoacetate

Aceto Chemical Co., 40-40 Lawrence Street, Flushing 54, N. Y., has available a data sheet on methyl acetoacetate, a relatively new solvent used in organic synthesis which offers advantages over the ethyl ester.

## Describing Waxes

International Wax Refining Company, East Hawthorne Avenue and L.I.R.R., Valley Stream, N. Y., has issued a brochure (7th edition, 1958-59) giving descriptions and prices of their line of waxes for industry.

## F. J. Stokes Equipment

F. J. Stokes Corporation, 5500 Tabor Road, Philadelphia 20, has available a comprehensive 20-page brochure on Freeze-Drying in Industry. The new brochure, Catalog No. 735, is a compendium of the principles, methods, and benefits of the freeze-drying process. Many typical processing problems solved by freeze-drying are described in detail.

Stokes Bulletin No. 680 describes Stokes drum dryers and flakers which are widely used in many different industries for drying and solidifying materials from the liquid or molten state at atmospheric pressure.

Stokes Model 238 series of vacuum shelf dryers for safe, rapid drying of heat-sensitive, air-sensitive, or pyrophoric materials such as titanium, zirconium, etc., as well as materials that must be dried without agitation, is described in a new bulletin, No. 630.

## Properties of 37 Waxes

A chart giving the physical properties of some 37 natural and synthetic waxes is available from The Baker Castor Oil Company, 40 Avenue A, Bayonne, N. J. Included in the data are melting and congealing points, densities at various temperatures, penetration values, and viscosities of the molten waxes.

## Pyrex Glassware

A 350-page color-coded Pyrex laboratory glassware catalog, containing the most complete listing of borosilicate glass chemical ware and apparatus ever printed, has been issued by Corning Glass Works, Corning, N. Y. Some 474 new items are among the more than 9,000 described.

## Day Ro-Ball Sifters

A new 8-page bulletin, No. 957, describes the complete line of J. H. Day Co., 4932 Beech Street, Cincinnati 12, Ohio, "Ro-Ball" sifters and gyrating screens. Construction details, including super-active ball cleaning device, are fully described and illustrated. A total of 18 different models are covered.

(Continued from page 367)

flower. A number of common aromatic chemicals such as heliotropine, benzyl acetate, rhodinol and anisic aldehyde are described as "flowery". This flowery effect is also obtainable from such materials as civet, indole and skatole. The floweriness of these aromatic chemicals is observable only when they are smelled in highly diluted form.

**Fragrance**—A word used in this text as an all-embracing term to describe any pleasant odor. Its use and meaning are almost synonymous with perfume. However, the perfumer's "extract" is what the layman thinks of as "perfume". Therefore, to avoid confusing the learner, "fragrance" is used consistently throughout this text.

**Fragrance oil**—A composition of various aromatic materials (natural or synthetic) that creates a definite fragrance effect. The components may be liquids, resins or solids, but the completed fragrance oil is always a liquid. Solvents are incorporated when necessary to produce this desired state. A fragrance oil may be diluted with alcohol to produce an extract or a cologne, or may be incorporated in a cosmetic preparation, a powder base, soap, lotion, brilliantine etc.

**Fresh**—An effect introduced into a fragrance by the use of a citrus oil (bergamot, lemon, orange, mandarin or lime) named in order of their utility) or certain aldehydes, notably C-9 and C-10. Other ma-

terials imparting a degree of freshness are lavender, linalyl acetate, bornyl acetate and peppermint oil.

**Fruity**—A quality thought of in connection with the essential oils of lemon, orange, lime, mandarin and bergamot used in perfumery. Among the aromatic chemicals, phenylethyl isobutyrate with its pineapple quality and aldehyde C-14 (peach lactone) with its clear peach note are examples. Aldehyde C-14 is used quite generally in fancy fragrances to contribute a mellow warmth in conjunction with fruitiness.

**Green**—A note reminiscent of fresh cut leaves or vines. Among the essential oils violet leaf absolute is an outstanding example of this "green" note. The aromatic chemical methyl heptene carbonate is a synthetic counterpart of this same violet leaf effect. The dimethyl acetal of phenylacetaldehyde with its distinct shade of mignonette is another variation of greenness.

**Harsh**—A word descriptive of a crude, often pungent odor. Methyl phenyl carbinyl acetate with its typically harsh gardenia note is a prime example of this odor.

**Heady**—Exhilarating, sparkling, stimulating. This quality would be comparable to the exciting taste and effervescence of a glass of champagne. "Headiness" in a fragrance is much sought after by the creative perfumer, but it is difficult to achieve be-

(Continued on page 385)



(Continued from page 382)

cause of the very limited number of materials available for this purpose. Traces of the more volatile aromatic esters such as ethyl formate and acetate can often initiate this effect.

**Heavy**—See "light and heavy".

**Herby**—A quality best described as a medicinal or phenolic note combined with a coarse grassiness, often pungent. The essential oils of thyme, hyssop, calamus and chamomile all illustrate the "herby" note in different ways.

**Intriguing**—The perfumer's equivalent of the painter's expression "eye-catching". A fragrance is said to be intriguing when it can attract and hold the attention of the individual examining it.

**Leather**—A sweet and pungent smokiness such as would result from the blending of methyl ionone and oil of birch tar. The best single chemical with a leather characteristic is para-tertiary butyl phenol. In spite of its odd quality, the leather (French *cuir*) effect plays an important part in the background of complex florals as a contrasting medium to break up monotony.

**Lift**—The conversion of a fragrance from "heavy" to "light". This is usually achieved by means of citrus oils (bergamot and lemon) and synthetics (esters of linalool, citronellol and geraniol).

**Light and heavy**—Words used to indicate the time and effort involved in the perception of an odor. An aromatic material is said to have a "light" odor when it is easily and quickly recognizable. Any of the essential citrus oils (bergamot and lemon in particular) are light. Among the aromatic chemicals benzyl acetate is an illustration of this quality. Lightness is usually found in materials having relatively low boiling points, or in products of ester structure.

An aromatic material is said to have a "heavy" odor when time and physical effort are required for recognition. Such a material is musk xylol; its odor is pleasant, but definite (though momentary) physical effort is required for appreciation. Materials producing "heaviness" usually have high boiling points, as for example santalyl acetate and vetiver acetate. An overabundance of heaviness dulls or deadens a fragrance; an overabundance of lightness thins and acidifies a fragrance.

**Modern**—A word used loosely to describe fragrance compositions containing aliphatic aldehydes to the extent that they are observable in the topnote. This nomenclature came about when the aliphatic aldehydes were first introduced into perfumery. Since aldehyde-based fragrances were then regarded as highly novel and daring, they were referred to as "modern", a name which has persisted.

**Perfume oil**—See fragrance oil. The expression "perfume oil" is used today by many people for



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traditional rather than proper descriptive reasons.

**Powder**—A term used to describe toilet powders of all types, including various specialties such as antiperspirant powders, baby talcs etc. Basically a powder consists of talc (powdered, purified magnesium silicate) blended with other materials of a diluent, cosmetic or medical nature, and perfumed with a fragrance oil.

**Powdery**—a descriptive term applied to fragrances having a considerable sweet and musky odor. Compositions having this "powdery" note contain mixtures of vanillin, coumarin, heliotropine, musk xylol, musk ketone or musk ambrette in their design. This special effect is introduced into the background of existing fragrances to ensure their satisfactory performance in powder mediums.

Frequently "raw" (i.e.: unperfumed) powder bases with a high talc content show a "sour" note by themselves. This requires masking before a fragrance oil can properly display itself in these bases. Conventionally, either the perfume or cologne fragrance is used to perfume a powder, and is given this "powdery" adjustment in its background to be sure that the "sourness" of the powder vehicle does not "show through".

**Rich**—A word used in perfumery to describe fullness. A "rich" perfume is comparable to the harmonious effect of a full symphony orchestra. One of the best examples of richness in a single aromatic

material is natural jasmin absolute. Although jasmin absolute is costly it is widely used because of the inimitable touch of richness it confers on any fragrance.

**Rounding out**—A phrase used to describe the process of adding the finishing touches in the creation of a fragrance. A perfumer would say, "Small quantities of jasmin and rose absolutes were added to round out the bouquet".

**Sachet**—An absorptive powder mixture blended with a given quantity of fragrance oil. This mixture is usually composed of kieselguhr, talc and magnesium carbonate. In special instances finely powdered alpha cellulose and ground silk fibres have been used. Experimental work has also been done with activated silica gel and absorptive alumina.

The fragrance oil content of a sachet may vary from 5 to 20 per cent depending upon the absorptive capacity of the base mixture.

**Sharp**—A "penetrating" quality found in any of the aliphatic aldehydes used in perfumery. A combination of loud, coarse, aromatic chemicals in a cheap fragrance occasionally produces a mildly penetrating effect that can be classified as sharp.

**Spicy**—A word descriptive of a pungent or piquant fragrance. Oil of cloves or oil of cinnamon are classic examples of spiciness in single aromatic materials. Among the aromatic chemicals eugenol and isoeugenol are illustrations. In the flower group carnation

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and oil of lavender may be described as having spicy nuances.

**Sweet**—A fragrance effect classically illustrated by the rose. The rose effect is constantly used to sweeten perfume oils during the course of their design. The rose is to the perfumer as sugar is to the chef. The recently developed chemical "Palatone" is an excellent demonstration of a single chemical body with an intense sweetening effect, both in perfumery and flavors.

**Thin**—A fragrance lacking in the overtones necessary to give it "color" is described by the perfumer as "thin". Musically this condition might be illustrated by the sound of a single violin played without accompaniment. "Thin" and "sharp" are somewhat related in meaning.

In practical perfumery this "thin" effect is encountered in the "modern" aldehydic fragrances when the aldehydes have not been given enough floral coverage to soften their impact, and in compositions based on too few components.

**Tonality**—The dominant note or theme of a fragrance.

**Top note**—The immediate effect of a fragrance upon the sense of smell. This expression is commonly used in connection with an extract of cologne, when examined on the skin. Careful consideration of this top note is highly important in the design of a fragrance, since the initial sales appeal may be totally dependent upon its quality.

Chemically, the top note is the most volatile material in the composition of the fragrance oil, and often it is deliberately accentuated by the use of a highly volatile chemical, as for example in the French practice of using a trace of methyl acetate or propionic aldehyde, to emphasize the first "fruity" effect of a cologne top note.

**Warm**—A word used to describe a fragrance which has a stimulating effect upon the imagination. The effect of warmth is usually conferred by materials having an unconventional odor. Such a material would be octyl isobutyrate whose odor lies on the borderline between flavors and perfumery.

**Woody**—a fragrance effect generally linked with the aroma of freshly cut, dry oriental wood or fibrous root, as illustrated respectively by the essential oil of sandalwood or vetiver. "Woody", is a term having an entirely different meaning to the layman than it does to the perfumer, must not be confused with "woody" which implies the green effect of a forest.

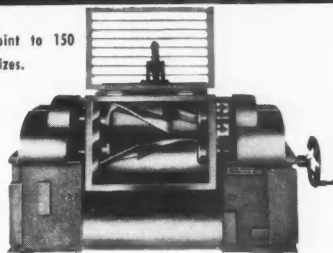
#### LATIN-AMERICAN DRUG LAWS

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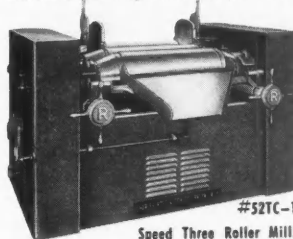
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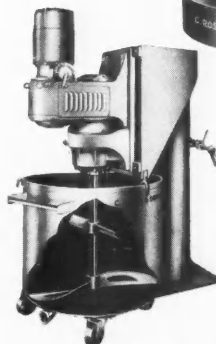
#30C—50 Gal. Heavy Duty Change Can Mixer.  
Adjustable outer scraper, cover with charging port, and gates on cans optional.

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60 gal. sizes.



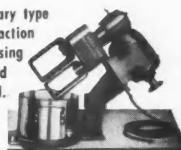
#130H—250 Gal. Change  
Tank Mixer with hydraulic  
raising and lowering and  
variable speed motor. Various  
type stirrers and  
high speed impellers optional.

• 80, 150 and  
250 gal. sizes.



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