The Overdose

By Martin Gras, Senior Perfumer, Dragoco, Paris, France

Editor's Note

We read this article in "Dragoco Report" and found it a fascinating comment on recent developments in creative perfumery and felt that it should be reprinted in **Perfumer & Flavorist** in order to reach a wider audience. Mr. Gras introduces the idea of "The Overdose" with a discussion of limits on human activity, including the obvious limit on life itself. He then points out that the limits that have traditionally been taught to perfumers concerning the use of powerful and valuable perfumery ingredients just do not apply today. The article goes on to document this subject in a most useful and interesting way. We are pleased to have received permission from Mr. Gras and the editor of the Dragoco Report to reprint a large part of this article in **Perfumer & Flavorist**.

Stanley Allured, Publisher

Luckily, in perfumery, there are no limits. Few substances are prohibited or restricted by RIFM or IFRA recommendations. Consequently, we shall attempt to demonstrate that though the perfumer himself may have his limitations (cost, time, work, talent and so on), the possibilities for combining and utilizing the raw materials themselves are limitless.

Thus, with a few examples, we shall study the evolution of certain aroma chemicals which were initially used in traces in a composition, and which now find themselves in overdose proportions in formulas, at concentrations which we would never have imagined possible.

Hedione

Hedione is a product which was identified and achieved popularity in the sixties, being used at about 3% in Eau Sauvage (Dior-1966).

Later, we find it about 20% in the perfume Coriandre (Couturier-1973) and at a significantly higher dosage in the Eau de Toilette Cristalle (Chanel-1974).

This product has given perfumery a new look; it is equally well suited to men's and women's fragrances.

Lilial

Lilial is a well-known product, chiefly used in soaps and detergents. It found an application in alcohol-based perfumes in the 70s, and principally in the men's range Paco Rabanne (1973) at approximately 2%. Right now, we find it at a ten times higher concentration in the women's range Calyx (Prescriptives-1986), it all goes to shows that this initial overdose was not an isolated moment of madness.

Dimetol

This source material, initially used in household products, found its place in alcohol-based perfumery with the men's range Paco Rabanne; an incontestable asset for its freshness.

Never incorporated at overdoes levels, it has given place to another product which has the same advantages, but is even fresher and less floral: dihydromyrcenol.

Dihydromyrcenol

Dihydromyrcenol is a prime example. It aroused a certain amount of interest in the 70s due to its very successful incorporation in Azzaro (Couturier-1978).

Later on we find it in almost all the men's fragrances at an overdose of approximately 10% in Drakkar Noir (1982) and even twice as much in Cool Water (Davidoff-1988). This product is only waiting for one thing—a real overdose!

Allylamyl glycolate

Drakkar Noir and Cool Water have another constituent in common: allylamyl glycolate. It was certainly used first in traces in Alliage (E. Lauder-1972), then at about 1% in Drakkar Noir, and finally at approximately 3% in Cool Water. The incorporation of this source material has thus multiplied by 150 in 16 years.

What is more, this is an asexual product which is equally accepted in men's and women's fragrances.

Damascones

The Damascones represent another category of asexual products: rosy, fruity notes. Initially used in household products, they quickly made their way into alcohol-based perfumes; they really exploded in Poison (Dior-1986), but had probably reached overdose level already in Tea Rose (Perfumer's Workshop-1976) and in Nahema (Guerlain-1979). Who will brave 1%?

Mandarine Aldehyde

A powerful note, only sold in 10% solutions, it has created a whole new category of perfumes; eaux fraiches, virtually replacing the old eaux de Cologne.

Mandarine aldehyde harmonizes exceedingly well with Hedione; it met, and continues to meet, the need to use a perfume simply to feel "fresh"; to use perfume for one's own pleasure.

Even 1% in a formulation produces considerable ef-

fects. However, in Signoricci II (Nina Ricci-1976) we find it at an overdose level of approximately 5%.

Ambroxan

Ambroxan has come a long way! It was so strong that at first we only used it as a base: "Fixateur 404".

Following the example of Azzaro, it was realized that a perfume could actually smell of Ambroxan. We find it at overdose level (1% pure) in Cool Water.

Iso E Super

There has been just as much movement among the woody, amber notes:

- Vertofix Coeur at an overdose of up to 20% in Cacharel pour Hommes (Cacharel-1981)
- Boisambrene forte and Cedramber

Traces initially but currently 10%

culminating in Iso E Super, recognized for the diffusion that it gives a perfume.

Sixteen years ago it was already to be found in Halston Feminin (Halston-1974). It then made its way via some great perfumes like Paris (Yves Saint Laurent-1983), and Giorgio (1981).

Gradually perfumers everywhere have been convinced of the great value of this product, and Iso E Super has quite naturally found its way into almost all perfume formulations.

We find it at an overdose of around 25% in Fahrenheit (Dior-1988), always in good company of Timberol, as well as in Antaeus (Chanel-1981), giving severity and strength to the base notes of male fragrances.

Sandalwood

Sandalwood has always given great warmth and sensuality to the perfumes containing it.

Sandela, an affordable sandal note, has found its major application in accords with Vertofix Coeur, benzyl salicylate, methylionone-yand Lyral.

This complex accord dominated the 70s; the loveliest example is Super Estée (E. Lauder-1969). Since then, scientists have worked at, polished and improved the sandal note.

As the object of avid attention, it has resulted in some very elaborate notes: Brahmanol, Brahmanol-F, Sandalore, Sandranol and Bacdanol. Going from strength to strength and growing in tenacity, it has had a great career in perfumery. Jazz (Yves Saint Laurent-1988), Joop (Couturier-1987) and Samsara (Guerlain-1989) are good examples of perfumes with dominant sandal notes. The overdose!

Evernyl

In 1969 Calandre (Paco Rabanne) was launched with a 1% trace of Evernyl (Metra moss).

This product has found its place in every perfumer's palette to support the oakmoss note, and maybe even

eventually to replace it. The overdose is probably in Jil Sander at approximately 2%.

Musk

It is no use talking about musk. There is an overdose in all perfumes blatantly sporting its name, like Musk for Men (Jovan-1974) or Mure and Musc by Jean Laporte, etc.

Bourgeons de Cassis

The first use of the "Bourgeons de Cassis" note in a prominent perfume was certainly Amazone (Hermès-1974), and that set the fashion; Silences (Jacomo-1978) followed, together with many others.

The absolute harmonizes well with green floral notes while accenuating its own characteristics and bringing out its fruity side. Its use has been restricted because of cost, and perfumers have turned to the essential oil of buchu, which unfortunately does not possess all the qualities of the "Bourgeons de Cassis" absolute.

Buchu oil has allowed perfumers to create a new freshness in the top notes of eaux de toilette, because buchu harmonizes well with citrus notes. Quartz (Molyneux-1977) and Eau de Cologne d'Hermès (Hermes-1982) are good examples.

Careful study of the success of the cassis note has produced some very interesting results, such as Buccoxime. These have made it possible to produce synthetic cassis bases, the signature of perfumes as diverse as Ténéré (Paco Rabanne-1988) and the shampoo Elsève Jojoba (1987).

y-Decalactone

This is an equally fruity note that has proved its worth, for example in Charlie (Revlon-1973). We find it at overdose level in Poison (Dior) and Giorgio at over 0.5% and at over 1% in Anne Klein. It is still in its infancy, and rather shy!

Rose Oxide

We find rose oxide at the beginning of the 70s in Norell (Revlon-1970) and in Rive Gauche (Yves Saint-Laurent-1971), and more recently in Metal (Paco Rabanne) and Drakkar Noir, at just under 0.5%. Hardly a real overdose yet!

Anethole

In male fragrances we are always looking for a signature and a freshness in the top note.

Anethole, a fresh anise note, made its presence noticeable in Azzaro and then more strongly in Tuscany (1986), reaching its overdose in Metropolis (Lauder-1988) at approximately 1.5%.

Conclusion

All these examples are clear proof that there are no limits. Today's limit will be tomorrow's overdose. You

could even say that modern perfumery is based on overdose (this abundance of odoriferous energy), whereas the perfumers of old were obsessed by equilibrium and homogeneity.

To compose a perfume is not to balance the constituents (a negative kind of composition), but to unite them, taking part of all their attributes, in order to obtain a new, interesting form which results from those that make it up, but will neither be simply their sum, nor their neutralization.

The resulting form can have whatever character the perfumer imagines or projects; if he does it well, it will give an impression of unity, that is good cohesiveness. It will possess a certain homogeneity, which comes from harmony, but which will not have been the aim in itself.

In short, perfume is not the sum of odors, but the relationship between them.

Technically, in these conditions, any new addition of odorant elements would be bound to have repercussions in the accord, and to modify the relationship.

In reality, a perfume is generally made up of a sum of certain substances which may represent 30-50% of a formula, such as:

Benzyl salicylate Lyral Sandela Galaxolide Vertofix coeur Hydroxy citronellal Phenylethyl alcohol Bergamot and recently

Dihydromyrcenol

Iso E Super

Hedione

Increasing or reducing the proportions of these substances often only makes imperceptible variations. However, an overdose of a very characteristic substance can create dramatic effects. The accord has been destabilized, and the task of the perfumers will be to seek out a new equilibrium.

This equilibrium often provokes the overdose of something else like: lilial and dimetol in Paco Rabanne; rose oxide, damascone and allylamyl glycolate in Drakkar Noir; Ambroxan, dihydromyrcenol and allylamyl glycolate in Cool Water; and methyl octincarbonate and Iso E Super in Fahrenheit.

It has been adequately proven that the market—our invisible mentor—needs the overdose. It is ready to accept it.

Perfumery is a modern art, thanks to the market, which demands that a perfume should have an identity and this means an overdose.

Like the impressionists, the cubists and so on—and in this respect we shall never be in competition with the computer (an electronic perfumer is hard to imagine)—we innovate to advance our art, and innovation progresses via the overdose. Finally, the overdose of a product will set a new trend in men's and women's colognes.

To arrive at the overdose, we need to work with a simple formulation so that we do not

- Dilute the effect,
- Make a "mille fleurs" of the composition, but rather
- Have a profound knowledge of the raw materials,
- Know all the stages of evaporation,
- Know their behavior vis-a-vis other products, and
- Experiment to avoid the overdose of a product that smothers the perfume and has the opposite of the desired effect.

The overdose is there to glorify a perfume.

The perfumer must feel free in the presence of his source materials, and not feel limited to a particular concentration of a product in his formula, under the delusion that one does not exceed certain known limits that have been set by successful perfumes.

Numerous products can achieve the overdose effect, e.q., γ -decalactone, Frambinone, Timerol, Brahmanol, and so on.

All we need is to keep up our courage and keep up the dosage. The market will be our judge.

Reference

Address correspondence to Martin Gras, Senior Perfumer, Dragoco S.A.R.L., 113 rue de Longchamp, F-75116 Paris, France.