

The Last Word: From Functionality to Mystique—Perfumers on Ingredients

This year, *P&F* has published a series of dialogues with perfumers, discussing their favorite ingredients, their effects and the ways in which they work with the palette in today's regulatory and safety environment. One such pair of conversations highlighted the breadth of applications for perfumery and how technical and aesthetic demands shape perfumers' choices.

"I grew up in India and I love peaches and mangos, and for me Ringonol 50 [2-(2-mercapto-propan-2-yl)-5-methylcyclohexanone; CAS# 38462-22-5] really helps to give that tropical note to those fruits," says Aditi Bhanot, a perfumer with Takasago. "It's fantastic for bringing pink colors to florals, so even if you have a white floral bouquet and you add a touch of Ringonol 50, the peony almost goes from white to pink. It's also fantastic in red berries—I love the rose and red berry combination in general. Whenever I'm trying to achieve deep pinks and reds, then I add a bit of Ringonol 50. When you first smell it, it could take you to Bourgogne de cassis, fruits that have sulfur notes."

Aditi adds, "I would use a touch of it even in men's fragrances. You just need a very small amount, so you're not facing stability or discoloration issues when you're putting it in membranes or more challenging products."

Another of Aditi's favorite materials also provides formulation flexibility.

"For me, limonene thiol (1-methyl-4-methyl ethenyl cyclohexene sulfurized; CAS# 68921-26-6) is a great grapefruit note," she explains. "It's very powerful ... when we use it, we usually dilute it. It's great for citruses, especially when you're faced with something that's allergen-free or a multi-surface cleaner that is low-pH and you're restricted on the number of materials you can use, where citral could discolor, but you're really trying to get that juicy citrus note on the top. It gives me the pulp and the



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rose absolute, that he finds himself returning to in various levels and combinations as he formulates.

"If you use a specific quality of patchouli (fraction, molecular distillation, etc.) it provides you something really different," he explains. "To be creative, we don't need 1,000 or 2,000 products."

Speaking with *P&F*, Epinette shares some of his "usual suspects."

"Patchouli and papyrus are for me really dark woods," he says. "I love dark woods. They give a mystique effect to fragrances."

He adds, "I like synthetic amber notes, like Karanal^b [2-(2,4-dimethylcyclohex-3-ene-1-yl)-5-methyl-(1-methylpropyl)-1,3-dioxane]. That's a really a new kind of amber, fresh, sparkling, dry, woody, strong."

Meanwhile, he treasures lemon oil for its simplicity: "It's fresh, juicy, a bit fruity."

Epinette concludes, "Every day we have to deal with regulatory in order to formulate. It's true we can't use some materials any more, but others can be used at a lower level. You can still be creative using a similar product that is IFRA-conforming."

juice at the same time with very small amounts."

Aditi continues, "Otherwise, when I'm creating a citrus for a more functional product, it would have a lot of nitriles in order to be stable. And then it's more aldehydic, nitrilic. The hedonics—beauty and juiciness—benefit greatly with touches of limonene thiol. Sometimes you're working in baby care and [the fragrance] needs to be allergen-free, but you still need it to be that citrus accord. It really covers that spectrum from where on one end you're working on baby products and on the other where you're working on hardcore cleaners or cat litter where stability and malodor come into play."

When asked how safety restrictions affect her work, Aditi says, "When you think of the palette shrinking and put the safety restrictions on the market products, you have to rely on very small [groups] of materials. That's where these materials are indispensable."

"I have a wide palette of ingredients," says Jerome Epinette, a perfumer with Robertet who works extensively in fine fragrance. Yet, he says, he has a core of favorite materials, including

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^aRingonol is a Takasago trade name.

^bKaranal is a Givaudan trade name.