

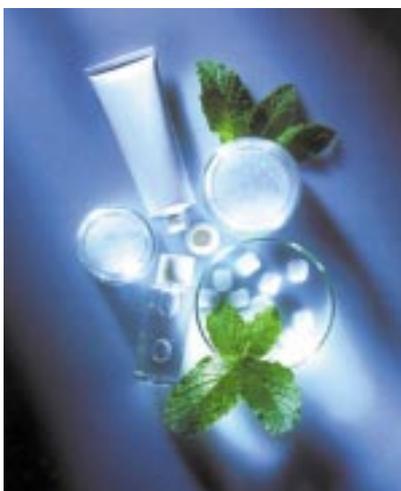
# Does peppermint make you feel sexy?

## Mint flavors are popular the world over



**Peppermint smells cool and fresh. Peppermint turns us on. Does peppermint even make us sexy? It certainly seems to have done just that in the ancient Greek world, because they called mint "Aphrodite's crown."**

There was only one reason why they rubbed their tables with fresh mint leaves: They wanted to spark carnal lust. And that might be the reason why mint has continued to be one of the world's most coveted flavors, right down to this very day. In toothpastes or bath gels, perfumes or cigarettes – the flavor of mint imparts that feeling of freshness, cleanliness and coolness that we value so highly.



But not everything that tastes like peppermint actually contains *Mentha piperita*. Flavor experts also pick other mint plants from Nature's garden, from which they obtain key ingredients for their products. One of their very favorites: Corn mint oil, or simply "mint oil" (*Mentha arvensis*). Yet many specialists only rarely have to seek out these plants in the garden – they can get their ingredients in house. A good example of this is Haarmann & Reimer, where industrial-scale production of synthetic l-menthol – synonymous with cooling freshness the world over – began some 30 years ago.

### Mint is everywhere

There are only few substances that consumers encounter as often as this primary component of peppermint oil: In oral care products and sweets, in tobacco products as well as in pharmaceuticals, where menthol has long enjoyed a good reputation thanks to its antibacterial, antispasmodic and positive circulatory effect.

With this synthesis, H&R achieved one of the major milestones in its corporate history: "This in fact makes our product far superior to its natural counterpart, because natural oils are always subject to fluctuations – in quality, quantity and price," says mint specialist Karl-Heinz Schumacher. 1964 researchers and developers in Holzminden began to copy the natural ingredient. Hardly had they begun before they were faced with a problem that doesn't exist at all in nature in connection with menthol, a problem that had already doomed other researchers to failure: Cleavage of racemates –

mixtures of two mirror-image forms of a molecule, like the left and right shoes that make up a pair.

This mixture is formed from the intermediate thymol – it consists of d- and l-menthol. However only the l-version occurs in nature. Only this version possesses the typical flavor of peppermint and the cooling effect that makes menthol so popular.



### Mint Flavor Development

Using a crystallization process, they finally succeeded in obtaining both versions in their pure form. After ten years of research and development work was it possible to put the world's first production plant for synthetic l-menthol into operation. This was followed in 1978 by a second, even larger plant in Bushy Park, South Carolina. Today, with a combined output of 2,500 mt per year from both locations, the company covers around one fifth of world demand for menthol.

But for the mint experts, synthesizing menthol was only the first step in a long development process that's reflected in a product portfolio which today offers customers unlimited opportunities: The OPTAMINT line of synthetic mint oils and flavors.

Using traditional mint flavor development methods, today's flavorists can select from around a dozen natural peppermint oils, plus a handful of spearmint oils – along with any number of resulting disadvantages. Mint expert Schumacher: "It's a major problem for spearmint oils, in particular, to remain chemically stable." And the issue of consistent quality is a problem in its own right. Essentially, flavorists have to use natural oils the way they happen to come. But not at Haarmann & Reimer, where flavor specialists know each and every substance in an OPTAMINT oil. And they know how they'll behave when used in combination with other components.

#### **Simply perfect**

For Schumacher, OPTAMINT oils number among the very the best the market has to offer: "The components are always available and affordable, because we produce them in house. We're always able to supply product quality that's very high and consistent. That would be all but impossible to achieve with traditional methods, except at the price of enormous cost."

His enumeration quickly brings him to his favorite subject: Bouqueting peppermint and spearmint flavors. That's a difficult endeavor, he goes on to say, because the terpenes contained in natural oils produce a dirty-stuffy taste. They overwhelm the bouquet notes so much that the bouqueting is all but unrecognizable to the consumer. Mint specialist Schumacher: "But if you can't really taste something, you won't buy it again. We naturally want to protect our customers against that." And when he says this, it sounds every bit as fresh as if he'd just eaten peppermint candy.