



Organoleptic Characteristics of Flavor Materials

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Basil oil verveina

Source: Laboratoire Monique Remy/IFF

FEMA# 2119, CAS# 8015-73-4, natural, *Ocimum basilicum* L.

Odor: @ 100%. Herbal, earthy, lemon/citral-like and with a citrus peel note.

Taste: @ 1 ppm. Herbal, citruslike, lemony and tealike.

Taste: @ 2 ppm. Herbal, green, citruslike and lemony with a cooling nuance.

Possible applications: This particular variety of basil oil doesn't have the spicy notes that are commonly associated with it. Its lemony profile will enhance not only citrus flavors, primarily lemon and lime, but also herbal flavors by giving them an interesting twist. Other areas where it will find use are in mints, tea, gin, blueberry and tropical flavors.

► **Laboratoire Monique Remy/IFF;** www.iff.com

Bengal pepper CO₂ extract

Source: Charabot

FEMA# 4266, CAS# 90082-60-3, natural, *Piper longum*

Odor: @ 100%. Sweet, balsamic, slightly powdery and dried fruitlike.

Taste: @ 1 ppm. Drying, sweet, balsamic, slightly davanalike with a slight bite.

Taste: @ 2 ppm. Sweet, brown and dried fruitlike with a bite.

Possible applications: Spicy notes do not dominate the profile of this material as would be expected. Its sweet, dried fruit notes will contribute to the profile of raisin, prune, tamarind, apricot and the like. It will also enhance berry flavors like strawberry, raspberry, cherry, and notes in red licorice and Swedish Fish-types of flavors.

► **Charabot;** www.charabot.com

Clary sage oil

Source: Bontoux Inc.

FEMA# 2321, CAS# 8016-63-5, natural, *Salvia sclarea* L.

Odor: @ 100%. Floral, green, herbal, slightly terpeney, slightly lavenderlike and powdery, with a cooling undertone.

Taste: @ 1 ppm. Herbal, sweet, floral, slightly citrus, woody and tealike.

Taste: @ 2 ppm. Herbal, dry, sweet, floral, citrus, tealike and slightly woody.

Possible applications: The rich, floral, herbal notes of this essential oil will nicely complement blue and purple fruit flavors, including blueberry, Concord grape, blackberry and plum, as well as apricot, peach, berry, citrus and tea flavors, especially black and herbal. A hint of clary sage oil will also add an interesting twist to mint, oral hygiene and liqueur flavors.

► **Bontoux;** www.bontoux.com

Coriander seed essential oil

Source: Elixens

FEMA# 2334, CAS# 8008-52-4, natural, *Coriandrum sativum*

Odor: @ 100%. Oily, slightly floral, herbal and slightly lemonlike, with a cooling note.

Taste: @ 5 ppm. Citruslike, orangelike, fresh and green.

Taste: @ 10 ppm. Green, citruslike, lemon and limelike.

Possible applications: Citrus flavors are a good fit for this material. Other areas where it will contribute depth are berry flavors like raspberry and blueberry, mint, oral care, herbal, tea, gin and liqueur.

► **Elixens;** www.elixens.com

Ocimene natural

Source: Robertet

FEMA# 3539, CAS# 13877-91-3

Natural occurrence: Lemon, orange, lime, yuzu, grapefruit, black currant, guava, parsley, mango, hop oil and thyme.

Odor: @ 100%. Cooling, earthy terpeney, slightly woody, citrus and slightly tropical.

Taste: @ 2 ppm. Sweet, terpeney, green, earthy and slightly vegetablelike.

Taste: @ 4 ppm. Sweet, woody, tropical, green, vegetablelike and earthy.

Possible applications: The green, vegetable notes of this terpene will enhance cucumber, lettuce, broccoli, celery and green pepper flavors. Tropical flavors like mango, guava, and kiwi are also good applications, as are citruses, especially lime and grapefruit.

► **Robertet;** www.robertet.com

2-Propionyl-2-thiazoline, 1% in propylene glycol

Source: Symrise

FEMA# 4064, CAS# 29926-42-9

Odor: @ 1%. Toasted, bready, popcornlike, cereal-like and slightly caramellic.

Taste: @ 1 ppm. Bread crustlike, nutty, popcornlike and toasted.

Taste: @ 2 ppm. Nutty, toasted, bread crustlike, popcornlike and cereal-like.

Possible applications: The toasted profile of this product makes it an especially good ingredient for toasted types of flavors, namely roasted meat, bread, pizza crust, nuts (cashews, pecans, macadamia, peanuts and hazelnuts), popcorn, crackers, rice and granola, and also browned butter, chocolate, caramel, toffee and brittle.

►Symrise; www.symrise.com

γ-Octalactone natural

Source: Robertet

FEMA# 2796, CAS# 104-50-7

Natural occurrence: Apricot, mango, peach, strawberry, plum, beer, sherry, blue cheese and butter.

Odor: @ 100%. Sweet, fatty, milky, slightly coconut and slightly earthy.

Taste: @ 1 ppm. Sweet, milky, slightly nutty, slightly coumarinic and coconutlike.

Taste: @ 2 ppm. Sweet, fatty, coconut and creamy.

Possible applications: This lovely lactone will add depth to most dairy flavors with its rich, creamy profile, especially milk, cream, fresh mozzarella, blue cheese, butter, yogurt, sour cream, half and half, ice cream and cajeta. Sweet, brown flavors like toffee, caramel, butterscotch, milk chocolate and vanilla, and fatty nuts like macadamia, cashew, Brazil and pecan are also great targets. And one can't forget coconut.

►Robertet; www.robertet.com

4-Mercapto-2-pentanone, 0.05% in propylene glycol (synonym: 2,4-thiopentanone)

Source: Symrise

FEMA# 4157, CAS# 92585-08-5

Natural occurrence: Beer, wine and cheddar cheese.

Odor: @ 0.05%. Gassy, earthy, slightly rubberlike, slightly meaty, slightly green, weedy and catty.

Taste: @ 0.1 ppm. Green, earthy, tropical and slightly berrylike.

Taste: @ 0.2 ppm. Green, slightly juicy, fruity, berrylike and tropical.

Possible applications: The sulfurous, tropical notes of this ketone will complement fruit flavors like passion fruit, grapefruit, black currant, mango, guava, strawberry, white and Concord grapes, and peach, where cattiness is a prized part of the profile. It will also shine in white wines like sauvignon blanc and aged cheddar cheese flavors.

►Symrise; www.symrise.com

4-Mercapto-4-methyl-2-pentanol, 1% in propylene glycol

Source: Excellentia International

FEMA# 4158, CAS# 31539-84-1

Natural occurrence: Wine and grapefruit.

Odor: @ 1%. Sulfurous, gassy, catty, tropical, savory and slightly cooling.

Taste: @ 1 ppm. Sulfurous, slightly juicy, fruity, tropical and black currantlike.

Taste: @ 2 ppm. Sulfurous, fruity, catty, tropical and grape/peach skinlike.

Possible applications: This is another great chemical for tropical flavor applications. Passion fruit, guava and grapefruit will especially benefit from its addition, albeit at very low levels. Its catty fruitiness will also be welcome in white wine, white and Concord grape, blueberry, black currant, peach and mango flavors, as well as blends thereof.

►Excellentia International;

<http://excellentiainternational.com>

Coffee CO₂

Source: Charabot

GRAS, CAS# 84650-00-0, natural, *Coffea arabica*

Odor: @ 100%. Sweet, slight dried fruit note, mochalike, roasted, slight hazelnut note and burnt sugarlike.

Taste: @ 5 ppm. Slight burnt sugarlike, sweet, cocoalike, slightly ashy and dark chocolatelike.

Taste: @ 10 ppm. Ashy, coffee, mochalike, slightly burnt and dark chocolatelike, with a hint of dried fruit.

Possible applications: With its dark chocolate notes, this coffee extract will add a different dimension to coffee, mocha and chocolate flavors. At levels beneath 5 ppm, it will enhance dried fruit flavors like raisin, prune, fig and apricot, as well as brown flavors like rum, hazelnut, caramel and vanilla.

►Charabot; www.charabot.com

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