



Organoleptic Characteristics of Flavor Materials

Judith Michalski, Senior Flavorist, Bell Flavors & Fragrances; jmichalski@bellff.com

Organoleptic Evaluation Panel

- Judith Michalski
- Carl Holmgren, Consulting Flavor Chemist
- Cyndie Lipka, Senior Flavorist, Bell Flavors & Fragrances
- Gerard Mosciano, Consulting Flavor Chemist
- Robert Pan, Senior Flavorist, Bell Flavors & Fragrances
- Deborah Barber, Senior Scientist, Kraft Foods
- Tom Gibson, Creative Director, Silesia Flavors
- Susie Sadural, Consulting Flavor Chemist

Assam tea extract

Source: Apple Flavor & Fragrance Co. Ltd.

GRAS, natural, *Camellia sinensis* var. *assamica* (Masters)

Odor: @ 100%. Brown, haylike, herbal, leafy, dry and tealike.

Taste: @ 0.1%. Tea, leafy, slightly floral, astringent and slightly metallic.

Taste: @ 0.2%. Tea, slightly floral, leafy, astringent, slightly metallic and bitter.

Possible applications: The true tea character of this product will stand on its own as well as serve as an excellent base for all types of tea flavors, especially those intended for beverages.

►Apple Flavor & Fragrance Co. Ltd.; www.cnaff.com

Coffee arabica CO₂ extract

Source: Berjé

GRAS, CAS# 84650-00-0, natural, *Coffea arabica* L. (Rubiaceae)

Odor: @ 100%. Roasted, coffee, brown, smoky and ashy.

Taste: @ 10 ppm. Coffee, cocoalike, sweet and smoky.

Taste: @ 20 ppm. Roasted and brewed coffeelike with mocha

Possible applications: The medium-roast notes of this extract will add depth and character to all coffee flavors as well as to chocolate, mocha, maple, caramel, toffee and other sweet brown flavors. At lower levels, it might even be considered to reinforce brown, smoky, savory notes in bacon, ham and sausage.

►Berjé; www.berjeinc.com

Nonanal dimethyl acetal

Source: Bedoukian

FEMA# 4367, CAS# 18824-63-0

Not yet found in nature.

Odor: @ 100%. Green, waxy, fatty, aldehydic, slightly unripe fruitlike and vegetablelike, with a hint of cilantro.

Taste: @ 3 ppm. Green, waxy, fatty, aldehydic and fruity.

Taste: @ 6 ppm. Waxy, green, fatty and vegetablelike, with cilantro and parsley undertones.

Possible applications: The green, waxy notes of this material will compliment vegetable flavors like cucumber, green beans, lettuce, watercress and broccoli. Herbal flavors like cilantro and parsley will benefit, as will fruit flavors, especially watermelon, cantaloupe, pear and green apple.

►Bedoukian; www.bedoukian.com

Jasmine tea extract

Source: Apple Flavor & Fragrance Co. Ltd.

GRAS, natural, *Camellia sinensis*

Odor: @ 100%. Floral, jasmine, powdery and slightly metallic, with a touch of indole.

Taste: @ 0.02%. Green, delicately floral, leafy, tealike and slightly astringent.

Taste: @ 0.05%. Floral, tealike, perfumey and astringent.

Possible applications: This very characteristic material will suffice all on its own as a very well-balanced jasmine tea flavor.

It will also add interesting notes to raspberry, blackberry, blueberry, strawberry, red and black currants, Swedish Fish and red licorice flavors.

►Apple Flavor & Fragrance Co. Ltd.; www.cnaff.com

γ-Hexalactone, natural

Source: SAFC

FEMA# 2556, CAS# 695-06-7, natural

Natural occurrence: Apricot, peach, mango, butter, cheese, milk, pawpaw, quince, papaya, raspberry and tea.

Odor: @ 100%. Waxy, sweet, creamy, slightly grainlike, musty and slightly coumarinic.

Taste: @ 5 ppm. Waxy, creamy, sweet, nutty, grainlike and coumarinic.

Taste: @ 10 ppm. Waxy, slightly bitter, creamy, nutty and slightly coconutlike.

Possible applications: This chemical will deepen the fatty notes of nut flavors, especially pecan, macadamia, brazil nut, hazelnut and coconut. It will add richness at low levels in fat flavors and replacers like tallow, milk fat and lard. Like other lactones, it will be useful in dairy flavors like cream, milk and cheese, and sweet brown flavors, especially caramel, toffee, vanilla and chocolate.

►SAFC; www.safcglobal.com

Dodecanal fraction 98%

Source: Florida Chemical Co. Inc.

FEMA# 2615, CAS# 112-54-9, natural

Odor: @ 1%. Citrus, waxy, peely, fatty, heavy, aldehydic and slightly green.

Taste: @ 0.5 ppm. Waxy, soapy, citrus, orange and cilantrolike.

Taste: @ 1 ppm. Soapy, aldehydic, bitter and citruslike.

Possible applications: This fraction of orange oil will add folded, peely notes to citrus flavors, namely orange, grapefruit, lemon and tangerine. Very low levels will help to reinforce fatty, waxy notes in cucumber, melons and cilantro.

► **Florida Chemical Inc.;** www.floridachemical.com

Furfuryl alcohol, natural

Source: SAFC

FEMA# 2491, CAS# 98-00-0, natural

Natural occurrence: Burley tobacco, bread, cocoa, coffee, juniper berry oil, potato chips, roasted barley, whiskey.

Odor: @ 100%. Brown, slightly breadly and slightly smoky.

Taste: @ 20 ppm. Brown, slightly smoky and musty.

Taste: @ 40 ppm. Smoky, slightly woody, brown and grainlike.

Possible applications: Although this chemical doesn't usually play a starring role in flavors, it will help to contribute brown, subtly smoky notes to Indonesian-type vanilla flavors, bacon and other smoked meats, lapsang souchong tea, whiskey, grain, coffee and barbecue flavors.

► **SAFC;** www.safcglobal.com

3-Hepten-2-one, 10% in ethanol, natural (synonym: coconut ketone)

Source: SAFC

FEMA# 3400, CAS# 1119-44-4, natural

Natural occurrence: Roasted hazelnut, green pepper and hops oil.

Odor: @ 10%. Ketonic, waxy, creamy, earthy, and slightly blue cheeselike and coconutlike.

Taste: @ 2 ppm. Creamy, dairylike, waxy, blue cheeselike, coconutlike and nutty.

Taste: @ 5 ppm. Dairylike, rich, coconut oil-like, nutty and creamy.

Possible applications: This ketone can be used in almost every dairy flavor to add great depth and richness. Custard, cajeta, melted butter, whipped and clotted creams, condensed milk and mold-ripened cheeses like Brie, Saint-André, Gorgonzola and blue cheese are all flavors where coconut ketone will add lingering, rich after-notes. Fatty nuts like macadamia and brazil nuts, pine nuts and cashews are also very good applications for this material.

► **SAFC;** www.safcglobal.com

3-Nonen-2-one, 10% in ethanol, natural

Source: SAFC

FEMA# 3955, CAS# 14309-57-0, natural

Natural occurrence: Asparagus, chicken, crayfish, mushroom, oats, soybeans, apricot and beef.

Odor: @ 10%. Ketonic, earthy, fatty, musty and green.

Taste: @ 1 ppm. Earthy, waxy, oily and slightly vegetablelike.

Taste: @ 5 ppm. Waxy, oily, bitter, starchy, nut skinlike and drying.

Possible applications: The powerful earthy, fatty notes of this material will enhance mushroom, vegetable flavors like cucumber and cultured dairy flavors like sour cream, yogurt and kefir. It should also be considered to enlarge the ketone complex in Brie, Gorgonzola, Camembert and other mold-ripened cheese flavors.

► **SAFC;** www.safcglobal.com

Fusel oil

Source: SAFC

FEMA# 2497, CAS# 8013-75-0, natural

Natural occurrence: Fermented grape and fermented potato.

Odor: @ 1%. Ethereal, whiskeylike, winey, slightly smoky and sweet.

Taste: @ 5 ppm. Winey, rumlike and whiskeylike.

Taste: @ 10 ppm. Fermented, winey and rumlike.

Possible applications: Composed of mostly alcohols, this material is a natural for adding boozy notes to most types of alcoholic flavors like wine, whiskey, rum, tequila, cider and brandy. It can be used in fruits to add overripe notes like apple, banana, strawberry and pear.

► **SAFC;** www.safcglobal.com

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