Organoleptic Characteristics of Flavor Materials

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Panelists

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

Ω-6-Hexadecenlactone, natural (synonym: ambrettolide)

Source: Fleurchem Inc.
FEMA# 2555, CAS# 7779-50-2, natural
Odor: @ 1%. Musky, perfumy, powdery and berrylike.
Taste: @ 0.2 ppm. Musky, perfumy, floral, berrylike and powdery.
Taste: @ 0.5 ppm. Musky, perfumy, powdery, waxy and soapy.
Possible applications: It is well known that a very little musk will go a long, long way. This particular material is no exception, and will enhance blackberries and blueberries, raspberry, cherry, pear and red licorice, and all blends thereof.
➤**Fleurchem Inc.;** *www.fleurchem.com*

Methyl laurate, natural

Source: SAFC
FEMA# 2715, CAS# 111-82-0, natural
Natural occurrence: Apple, banana, blackberry, cheese, cognac, coconut, papaya, melon, mussel, rum, star fruit and turnip.
Odor: @ 100%. Soapy, waxy, fatty and crayonlike.
Taste: @ 1 ppm. Waxy, fatty and soapy with a dairy nuance.
Taste: @ 2 ppm. Sweet, soapy, waxy and astringent.
Possible applications: Used sparingly, methyl laurate will endow dairy flavors with body and fattiness, especially hard cheeses, butter, milk and cream. It can also be considered to amplify the fatty acid complex in fat replacer flavors.
➤**SAFC;** *www.sigmaaldrich.com/safc*

Ethyl phenylacetate, natural

Source: SAFC
FEMA# 2452, CAS# 101-97-3, natural
Natural occurrence: Apple, beer, cocoa, guava, honey, olive, melon, papaya, pineapple, plum and grapefruit.
Odor: @ 1%. Sweet, floral, honeylike and cocoalike, with a slight animallic undertone.
Taste: @ 2 ppm. Honeylike, sweet, floral and fruity.
Taste: @ 4 ppm. Floral, honeylike and sweet, with a chocolate nuance.
Possible applications: The sweet, floral, fruity notes of this ester will enhance the ripeness of yellow fruits like peach, apricot, mango, papaya, guava, apple and pear. Its honeylike profile will fit very nicely into brown flavors like honey, chocolate, brown sugar, molasses, maple and dried fruits, namely prune, raisin and fig.
➤**SAFC;** *www.sigmaaldrich.com/safc*

2-Octanone, natural

Source: SAFC
FEMA# 2802, CAS# 111-13-7, natural
Natural occurrence: Apple, butter, cheddar cheese, rice, cocoa, mushroom, krill, milk and potato chips.
Odor: @ 1%. Blue cheeselike, ketonic, waxy, earthy, musty, creamy and mushroomlike.
Taste: @ 1 ppm. Solventlike, waxy, cheesy and musty, with a dairy nuance.
Taste: @ 2 ppm. Blue cheeselike, ketonic, waxy, slightly moldy, creamy and mushroomlike.
Possible applications: This product will especially enrich the profiles of cultured dairy products, including cultured butter, sour cream, buttermilk, cottage cheese, kefir and mold-ripened cheeses like Brie, St. André, blue and Gorgonzola. Other flavors where it will contribute to the earthy complex are mushroom, cantaloupe and cucumber.
➤**SAFC;** *www.sigmaaldrich.com/safc*

α-Iso-methylionone

Source: Vigon
FEMA# 2714, CAS# 127-51-5
Not yet found in nature.
Odor: @ 1%. Sweet, raspberrylike, woody, floral and powdery.
Taste: @ 0.5 ppm. Sweet, berrylike, fruity, floral and powdery.
Taste: @ 1 ppm. Woody, berrylike, fruity and floral.
Possible applications: This powerful ionone will complement the woody, floral complex of berry flavors like red and black raspberries, blackberry, cherry, blueberry and grape, as well as red licorice, Swedish fish and fruit punch.
➤**Vigon;** *www.vigon.com*

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2,6,6-Trimethylcyclohex-2-ene-1,4-dione (synonym: ketoisophorone)

Source: Vigon
FEMA# 3421, CAS# 1125-21-9
Natural occurrence: Lemon balm, mate, saffron, shrimp, tea, tobacco.
Odor: @ 100%. Sweet, tealike and slightly cooling, with a molasses note.
Taste: @ 5 ppm. Tealike, slightly fruity and slightly brown.
Taste: @ 10 ppm. Tealike, with a brown, dried fruitlike undertone.
Possible applications: Black tea, raisin, fig and prune are good applications for this component. Its fruity notes will also enliven the profiles of raspberry, blackberry, fig, peach, apricot, mango, melon, tobacco and davana-replacer flavors.
➤**Vigon;** *www.vigon.com*

Isophorone

Source: SAFC
FEMA# 3553, CAS# 78-59-1
Natural occurrence: Papaya, patchouli oil, cabbage, cranberry, roasted hazelnut, labdanum, grapefruit, macadamia nut and mushroom.
Odor: @ 1%. Sweet cooling, fruity, berrylike and slightly brown, with a hint of honey.
Taste: @ 5 ppm. Slightly floral, honeylike and slightly brown.
Taste: @ 10 ppm. Floral, berrylike, honeylike and dried fruitlike, with a cooling lift.
Possible applications: The interesting combination of notes in this material can be well-used in diverse flavors like honey, mead, maple, tobacco, dried fruit, raspberry, blueberry, cherry, peach, mango, apricot, and herbal and black tea.
➤**SAFC;** *www.sigmaaldrich.com/safc*

2-Octanol, natural

Source: SAFC
FEMA# 2801, CAS# 123-96-6, natural
Natural occurrence: Geranium oil, mint, rue oil and lavender.
Odor: @ 1%. Waxy, earthy, mushroomlike, cheesy and oily.
Taste: @ 0.5 ppm. Creamy, waxy, cheesy, earthy and mushroomlike.
Taste: @ 1 ppm. Mushroomlike, earthy, waxy, blue cheeselike and creamy.
Possible applications: The creamy, waxy notes of octanol will add richness and depth to many dairy flavors, especially those that have been subjected to heat, like dulce de leche, condensed milk and melted butter. Mold-ripened and aged cheeses are also good applications, as are mushroom, coconut and animal fat-replacer flavors.
➤**SAFC;** *www.sigmaaldrich.com/safc*

2-Methyltetrahydrofuran-3-one, natural (synonym: coffee furanone)

Source: Advanced Biotech
FEMA# 3373, CAS# 3188-00-9, natural
Natural occurrence: Coffee, cocoa, tobacco, pumpkin, beef, chicken and hazelnuts.
Odor: @ 100%. Solventlike, brown and slightly pyrazinelike, with a whiskey endnote.
Taste: @ 25 ppm. Nutty, brown, caramellic and alcoholic.
Taste: @ 50 ppm. Brown and rummy, with a hint of hazelnut.
Possible applications: Brown flavors are the obvious choices for this material's use, including coffee, caramel, bread crust, butterscotch, toffee, mocha, dulce de leche and vanilla. Other areas where it will add to the casky character are in brown liquor flavors like bourbon, rum and whiskey.
➤**Advanced Biotech;** *www.adv-bio.com*

Methyl 2-furoate, natural

Source: SAFC
FEMA# 2703, CAS# 611-13-2, natural
Natural occurrence: Coffee, hazelnut, blackberry, Cognac, peanut, honey, passion fruit, guava, dried bonito, peanut and wine.
Odor: @ 1%. Rubberlike, chemical, burnt, brown and sweet.
Taste: @ 1 ppm. Sweet, brown and burnt.
Taste: @ 2 ppm. Astringent, sweet, brown, burnt sugarlike and slightly bread crustlike.
Possible applications: Used carefully, this material can enhance brown notes in caramel, burnt sugar, tobacco, rum, smoked meats, roasted nuts, and baked-type flavors like bread crust, cookies and toasted coconut.
➤**SAFC;** *www.sigmaaldrich.com/safc*

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