Organoleptic Characteristics of Flavor Materials

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Organoleptic Evaluation Panel

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- Tom Gibson, creative director, Silesia Flavors
- Carl Holmgren, consulting flavor chemist
- Cyndie Lipka, senior flavorist, Sethness Greenleaf
- Gerard Mosciano, consulting flavor chemist
- Robert Pan, senior flavorist, Bell Flavors & Fragrances
- Susie Sadural, consulting flavorist

Natural occurrence information is from Leffingwell & Associates. Suppliers of most materials found in this report can be located in *Allured's Flavor & Fragrance Materials*, published in print and online by Allured Business Media. Learn more at *www.perfumerflavorist.com/ffm*.

Suppliers: Suggest materials for evaluation to Judith Michalski; judithmichalskillc@gmail.com.

Editor's note: This column contains flavor materials currently available from Cargill Flavor Systems, the flavor business that recently was acquired by Kerry Group plc.

Acetaldehyde Dipropyl Acetal, Natural, #1135582

Source: Cargill Flavor Systems
FEMA# 4688, CAS# 105-82-8
Natural occurrence: Rum, wine, tomato.
Odor: @ 100%. Earthy, musty, green, slightly alcoholic and vegetablelike with a chrysanthemum nuance.
Taste: @ 2 ppm. Earthy, raw vegetablelike, green and slightly floral.
Taste: @ 4 ppm. Green, vegetablelike, earthy and slightly floral.
Possible applications: This material has a complex profile that will fit into many vegetable flavors like green pepper, watercress, jicama, carrot, radish, tomato, potato, bean sprouts and so on. At lower levels its earthy, green notes will also add naturalness to apple, pear and strawberry flavors. Its floral notes will fit nicely into tea-, chrysanthemum- and tagetes-type flavors.
➤**Cargill Flavor Systems;** *www.cargill.com/food/flavors*

2-Butyl-2-octenal, Natural, #1131830

Source: Cargill Flavor Systems
FEMA# 4616, CAS# 13019-16-4
Natural occurrence: Heated white flour, pork, tea leaves.
Odor: @ 100%. Fatty, green, leafy, metallic, fruity, slightly savory, sweet and aldehydic.
Taste: @ 2 ppm. Fatty, green, oxidized fat, mouthcoating and aldehydic.
Taste: @ 4 ppm. Fatty, green, mouthcoating and oxidized fat with a slight vegetable nuance.
Possible applications: With its fatty notes, this product is well-suited for reinforcing animal fat notes in meat flavors, especially chicken, pork, lamb, lard and tallow flavors, as well as cheese, cream and butter flavors. It may also find use in some fruits such as apple and pear.
➤**Cargill Flavor Systems;** *www.cargill.com/food/flavors*

Cucumber Aldehyde, Natural, #1518

Source: Advanced Biotech
FEMA# 3213, CAS# 18829-56-6
Natural occurrence: Asparagus, beer, white bread, grape, cheese, coffee, olives, peas, rice.
Odor: @ 100%. Fresh, green, fatty, waxy, vegetablelike, cucumber with a hint of watermelon.
Taste: @ 5 ppm. Fresh, green, fatty, waxy, vegetablelike and cucumber.
Taste: @ 10 ppm. Green, fatty, waxy, cucumber and watermelonlike.
Possible applications: For use in natural cucumber and green pepper flavors, this material is a must to reinforce the green, vegetable notes. In melon flavors such as watermelon and cantaloupe it acts synergistically with melonal and *cis*-6-nonenol, respectively, to establish true melon character.
➤**Advanced Biotech;** *www.adv-bio.com*

CO_2 Extract Coffee Espresso 03-3882/A/EAC, #1109431

Source: Cargill Flavor Systems
GRAS, CAS# 84650-00-0
Odor: @ 100%. Coffee, ashy, roasted and brown with a hint of tobacco.
Taste: @ 30 ppm. Coffee, ashy, roasted and brown with a cereal nuance.
Taste: @ 60 ppm. Ashy, coffee, roasted, brown and slightly caramel-like.
Possible applications: Not only will this product highlight all types of coffee flavors, it will also blend well in brown flavors such as caramel, butterscotch, vanilla and chocolate. Its ashy, roasted notes may add interest to savory flavors, especially BBQ and meat marinades.
➤**Cargill Flavor Systems;** *www.cargill.com/food/flavors*

Fig Extract #6058

Source: Advanced Biotech
GRAS, CAS# 90028-74-3
Natural
Odor: @ 100%. Sweet, brown, dried fruity, cooked and molasseslike.
Taste: @ 0.5%. Sweet, brown, tart and dried fruity.
Possible applications: This material is very characteristic of dried fruit and will therefore be a good fit for all flavor types such as fig, raisin, prune, tamarind, date and so on. Its sweet brown notes will also fit nicely into molasses, BBQ, brown sugar, caramel, maple and vanilla flavors.
➤**Advanced Biotech;** *www.adv-bio.com*

Natural Extract Chocolate Essence 20117, #1130349

Source: Cargill Flavor Systems
GRAS
Odor: @ 100%. Sweet, dark cocoa, boozy, earthy and slightly roasted.
Taste: @ 0.1%. Cocoa top notes, slightly winey, slightly woody and slightly fruity.
Taste: @ 0.2%. Alcoholic, dark cocoa, powdery and slightly fruity.
Possible applications: It goes without saying this material will fit very nicely into most chocolate flavors and its combinations. Other potential uses for it are liqueur flavors and vanilla.
➤**Cargill Flavor Systems;** *www.cargill.com/food/flavors*

Natural Flavor Muscatel Alcoholate 56% Vol F-07136, #1135390

Source: Cargill Flavor Systems
GRAS
Odor: @ 100%. Slightly cooling, floral, sweet, green, herbal, berrylike and woody.
Taste: @ 30 ppm. Green, floral and fruity with a berry nuance.
Taste: @ 40 ppm. Green, floral, woody with body.
Possible applications: This very interesting material will enhance apple, cherry and most berry flavors, as well as red licorice, tea and some tropical like litchi and rambutan.
➤**Cargill Flavor Systems;** *www.cargill.com/food/flavors*

Nootkatone IN13316 QP7559

Source: Lionel Hitchen Ltd.
FEMA# 3166, CAS# 4674-50-4
Natural occurrence: Oils of orange, grapefruit, lemon, lime and mandarin, as well as valerian root oil CO_2 extract, wormwood oil.
Odor: @ 100%. Citrus, terpeney, woody and slightly green with a hint of black pepper.
Taste: @ 2 ppm. Citrus, grapefruitlike and terpeney.
Taste: @ 5 ppm. Fresh, citrus, terpeney and grapefruitlike.
Possible applications: This material is highly characteristic of grapefruit, but will also lend character notes to other citrus flavors as well, especially orange. Tropical fruits, especially mango, will also benefit as well from its terpeney profile.
➤**Lionel Hitchen;** *www.lheo.co.uk*