



Organoleptic Characteristics of Flavor Materials

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Judith Michalski is joined by Gerard Mosciano, consulting flavor chemist; Carl Holmgren, consulting flavor chemist; William Jaggard, Bell Flavors; Douglas Young, principal flavorist, Symrise; and Tom Gibson, creative director, Silesia Flavors in the organoleptic evaluations presented here. Natural occurrence information is from Leffingwell & Associates.

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

Suppliers of most materials found in this report can be located in Allured's *Flavor & Fragrance Materials*, published by Allured Business Media, 336 Gundersen Drive, Suite A, Carol Stream, IL 60188-2403 USA; telephone 1-630-653-2155; fax 1-630-653-2192; www.PerfumerFlavorist.com.

Citronellyl Valerate

Source: Penta Manufacturing Co.

FEMA# 2317, CAS# 7540-53-6

Natural occurrence: Boronia, turmeric.

Odor: @ 100%. Cheesy, fruity, slightly citrusy, ripe banana, sweet.

Taste: @ 5 ppm. Fruity and herbaceous.

Taste: @ 10 ppm. Fruity, slightly woody, slightly green.

Possible applications: Although citronellyl valerate is not characterizing for any product in particular, its fruity notes can add brightness to pear, peach, apricot, and fruit blends. It can also be used to add ripe notes to banana and berry.

►Penta Manufacturing Co.; www.pentamfg.com

Cyclohexyl Cinnamate

Source: Penta Manufacturing Co.

FEMA#2352, CAS# 7779-17-1, Not yet found in nature

Odor: @ 100%. Sweet, fruity, cherrylike and candylike.

Taste: @ 2 ppm. Fruity, cherrylike, slightly floral, balsamic, sweet and baby powderlike.

Taste: @ 5 ppm. Fruity, cherrylike, slightly floral, balsamic, sweet and baby powderlike.

Possible applications: The interesting fruity, cherrylike notes of cyclohexyl cinnamate could possibly be used to modify heliotropine in cherry, berry and cream soda flavors. Other good applications for this material are peach, vanilla and candy-type flavors.

►Penta Manufacturing Co.; www.pentamfg.com

Dodecyl Isobutyrate

Source: Penta Manufacturing Co.

FEMA# 3452, CAS# 6624-71-1, Not yet found in nature

Odor: @ 100%. Hot wax, cooked milk and creamy.

Taste: @ 1 ppm. Sweet, milky and waxy.

Taste: @ 2 ppm. Cooked milk, buttery and waxy.

Possible applications: The creamy, milky notes of dodecyl isobutyrate make it outstanding for use in fresh and cooked milk type flavors, like dulce de leche and toffee. Its buttery and waxy character helps enhance melted butter, and fresh and aged cheese flavors.

►Penta Manufacturing Co.; www.pentamfg.com

Geranyl Caproate Natural

Source: Penta Manufacturing Co.

FEMA# 2515, CAS# 10032-02-7

Natural occurrence: Geranium, palmarosa, kumquat, passion fruit, andrenid bees.

Odor: @ 100%. Floral, waxy, green and dry leaflike.

Taste: @ 0.5 ppm. Green, fruity and slightly floral.

Taste: @ 3 ppm. Slightly floral, green, fruity and pulplike.

Possible applications: Another non-characterizing ester, geranyl caproate adds interesting effects, particularly fruity notes, in peach, apple, plum and apricot flavors. It can also be used in citrus complexes to modify floral notes.

►Penta Manufacturing Co.; www.pentamfg.com

Peanut CO₂ Extract Water-soluble

Source: Penta Manufacturing Co.

Odor: @ 100%. Roasted, peanut butter, smoky and oily.

Taste: @ 0.005%. Roasted, peanut and nutty.

Taste: @ 0.01%. Nutty, peanut, roasted and slightly smoky.

Possible applications: Since there are very few water-soluble peanut extracts available, this is an important addition to the flavorist's arsenal. It will find much use in peanut and nut flavors. At lower levels it can be used to contribute general roasted notes.

► **Penta Manufacturing Co.**; www.pentamfg.com

Pink Pepper C2520 (synonym: *Schinus molle*)

Source: Sensient Technologies

FEMA# 3018, CAS# 68917-52-2, Natural

Odor: @ 100%. Terpenelike, fresh parsley, woody and peppery.

Taste: @ 1 ppm. Woody, terpenelike and slightly peppery.

Taste: @ 2 ppm. Oily, woody, terpenelike and slightly peppery.

Possible applications: As with many CO₂ extracts, the end result comes as a surprise when compared to the original material. The dominant peppery notes in this product are subdued, making it a more useful product for natural citrus flavors, predominantly lime and lemon, and some tropical flavors like mango and parsley, where terpenes play a key role.

► **Sensient Technologies**; www.sensient-tech.com

Tea CO₂ Flavor Extract Green Tea

Source: Vigon International

Odor: @ 100%. Haylike, slightly tobaccolike and tealike with underlying barnyard notes.

Taste: @ 0.01%. Tealike, justly and slightly brown.

Taste: @ 0.02%. Musty, astringent, haylike with low melonlike notes.

Possible applications: This material lends itself well to green and herbal type flavored teas.

► **Vigon International**; www.vigoninternational.com

Tea CO₂ Flavor Extract Jasmin

Source: Vigon International

Odor: @ 100%. Sweet, floral, slightly mothball-like, slight barnyard note and tealike.

Taste: @ 0.005%. Floral, haylike and tealike.

Taste: @ 0.01%. Floral, tealike with underlying barnyard notes.

Possible applications: The floral (jasmine) notes of this material are very interesting and could be put to good use in bottled berry and grape flavored teas. It would also make a refreshing product on its own.

► **Vigon International**; www.vigoninternational.com

Tea CO₂ Flavor Extract Keemun

Source: Vigon International

Odor: @ 100%. Sweet, brown, slightly tobaccolike and leafy.

Taste: @ 0.01%. Sweet, brown and dried fruitlike.

Taste: @ 0.02%. Tealike, tobaccolike and brown.

Possible applications: This material adds deep, warm fruity notes to tea and bottled fruit teas.

► **Vigon International**; www.vigoninternational.com

Tea CO₂ Flavor Extract Pai Mu

Source: Vigon International

Odor: @ 100%. Musty, haylike, tealike, brown with slight barnyard notes.

Taste: @ 0.01%. Brown, haylike and herbal.

Taste: @ 0.02%. Green, leafy, slightly tobaccolike with underlying body.

Possible applications: This is another tea extract that will contribute characteristic notes to tea flavored products.

► **Vigon International**; www.vigoninternational.com

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