



Organoleptic Characteristics of Flavor Materials

Judith Michalski; judithmichalskillc@gmail.com

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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.

cis-4-Hexel-1-ol

Source: Bedoukian Research

FEMA# 3430, CAS# 6126-50-7

Natural occurrence: Banana, bean, butter, olive, passion-fruit, tomato.

Odor: @ 1%. Green, vegetablelike, ripe tomato, slightly fruity with cooked notes.

Taste: @ 1 ppm. Green and vegetablelike.

Taste: @ 5 ppm. Green, vegetablelike, oily with slight tomato note.

Possible applications: This green compound has a definite savory quality and can be used in tomato, potato, olive and olive oil flavors. It may also enhance the cooked quality in apple sauce and other cooked pome fruits such as quince and pear.

► **Bedoukian Research;** www.bedoukian.com

Diallyl Trisulfide

Source: Penta Manufacturing Co.

FEMA# 3265, CAS# 2050-87-5

Natural occurrence: Garlic and onion.

Odor: @ 1%. Pungent, fresh garlic and green with slight metallic notes.

Taste: @ 1 ppm. Pungent, raw garlic with slight meaty notes.

Taste: @ 1 ppm with 0.1% salt. Onion/garlic, savory, broth with cooked notes.

Possible applications: This powerful component is very characteristic of raw garlic and would be appropriate for most alliaceous flavors including onion, shallot and leek. Its green notes may also compliment cruciferous vegetable flavors, especially raw cabbage and wasabi. In salted applications it takes on more savory, cooked notes, and would be helpful in meat and broth flavors at very low levels.

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

Ethyl Cyclohexane Carboxylate

Source: Penta Manufacturing Co.

FEMA# 3544, CAS# 3289-28-9

Natural occurrence: Coffee.

Odor: @ 100%. Fruity, fermented, winey and sweet.

Taste: @ 1 ppm. Sweet, candylike, fruity and berrylike.

Taste: @ 2 ppm. Fruity, jammy, overripe and brown.

Possible applications: This is an inherently sweet compound and can be used in fruit flavors that are candylike and/or child-oriented, especially raspberry, cherry and grape. Its powerful fruitiness should also enhance fruit blends when used at lower levels.

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

2,4-Hexadienyl Butyrate (synonym: Sorbyl Butyrate)

Source: Bedoukian Research

FEMA# 4133, CAS# 16930-93-1, Not yet found in nature

Odor: @ 1.0%. Green, fruity (pineapple, papaya, ripe melon, especially cantaloupe) with cheesy undertones.

Taste: @ 2 ppm. Green, unripe fruit and melonlike notes.

Taste: @ 4 ppm. Green, tropical fruit with melon/cucumber undertones.

Possible applications: Although it's not a characterizing note on its own, 2,4-hexadienyl butyrate can enhance melon notes, especially cantaloupe, as well as reinforce tropical notes in papaya, guava, and pineapple. It can also be used in apple, pear and cucumber.

► **Bedoukian Research**; www.bedoukian.com

2,4-Hexadienyl Isobutyrate (synonym: Sorbyl Isobutyrate)

Source: Bedoukian Research

FEMA# 4134, CAS# 16491-24-0, Not yet found in nature-

Odor: @ 1%. Sweet, fruity (apple, melon, tropical), slightly floral and green notes.

Taste: @ 2 ppm. Fruity, apple, sweet, low tropical notes.

Taste: @ 4 ppm. Green, fruity, apple, fresh, waxy.

Possible applications: Although it's not a characterizing note on its own, this compound could be helpful in fruits such as apple, melon, and pear, where green notes play an important part.

► **Bedoukian Research**; www.bedoukian.com

2,4-Hexadienyl Propionate (synonym: Sorbyl Propionate)

Source: Bedoukian Research

FEMA# 4131, CAS# 16491-25-1, Not yet found in nature

Odor: @ 1%. Green, fruity, tropical with rancid dairy nuances.

Taste: @ 2 ppm. Green, vegetablelike, waxy with underlying musty tones.

Taste: @ 4 ppm. Green, tropical fruit, waxy with slight cheesy notes.

Possible applications: At lower levels 2,4-hexadienyl propionate can reinforce fresh notes in vegetable flavors, pear and apple. Higher levels will help to enhance tropical notes in guava and passionfruit.

► **Bedoukian Research**; www.bedoukian.com

3-(3,4-Methylenedioxyphenyl)-2-Methyl Propanal (synonym: Ocean Propanal, Aquanal)

Source: SAFC

FEMA# 4599, CAS# 1205-17-0, Not yet found in nature

Odor: @ 100%. Green, fresh, clean, melonlike and sweet.

Taste: @ 5 ppm. Green, melonlike, vegetablelike and floral.

Taste: @ 10 ppm. Watermelonlike, waxy with an underlying perfumery note.

Possible applications: Originally a fragrance compound, this material can be particularly useful in melon flavors, primarily watermelon and cantaloupe. Other possibilities are red berries, pear, apple and cucumber.

► **SAFC**; www.sigmaaldrich.com

d-Neomenthol

Source: Penta Manufacturing Co.

FEMA# 2666, CAS# 2216-52-6

Natural occurrence: Cornmint, peppermint, spearmint, buchu leaves, rum.

Odor: @ 1%. Cooling, minty, slightly spicy with earthy, rooty notes.

Taste: @ 10 ppm. Bitter, cooling, leafy with earthy, beet-like notes.

Taste: @ 20 ppm. Cooling, bitter and green, mint leaflike notes.

Possible applications: Described as being a "softer" menthol, this material can be used in flavors where menthol is used to tone its harsh edge as well as to deepen the profile. This includes all mints and oral hygiene flavors. Black licorice, anise, fennel and cordial flavors are also good applications for this material where its earthiness would fit nicely.

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

δ-Tridecalactone

Source: Soda Aromatic

FEMA# 4685, CAS# 7370-92-5, Not yet found in nature

Odor: @ 100%. Creamy, milky, oily and sweet.

Taste: @ 5 ppm. Creamy, fresh, milky and nut oil-like.

Taste: @ 10 ppm. Creamy, milky, oily and mouthcoating.

Possible applications: This compound is outstandingly creamy and will be a welcome addition to milk, cream and fresh cheese flavors for both flavor and body. Its oiliness will compliment oily nut flavors like macadamia, pecan and Brazils. Other flavors that will profit from its use are dairy blends, toffees, caramel, milk chocolate, yogurt and sour cream.

► **Soda Aromatic**; www.soda.co.jp

trans-3-Hexenol

Source: Fontarome Chemical

FEMA# 4356, CAS# 928-97-2

Natural occurrence: Apple juice, arctic bramble,

cherimoya, bachang, cloud berry, feyoa, hops oil, etc.

Odor: @ 1%. Green, fruity, pungent with underlying petroleum notes.

Taste: @ 1 ppm. Green, vegetablelike, apple peel notes.

Taste: @ 5 ppm. Green apple with vegetable notes.

Possible applications: This compound can enhance the fresh, green notes in vegetables and olive oil, as well as in fruits, such as apple and pear. It is sweeter in taste than its isomer, *cis*-3-hexenol.

► **Fontarome Chemical**; www.fontaromechemical.com