



# Organoleptic Characteristics of Flavor Materials

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## Organoleptic Evaluation Panel

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

## Hexanal propylene glycol acetal

*Source:* Kerry Flavor Systems US LLC  
FEMA# 3630, CAS# 1599-49-1

*Natural occurrence:* Gentian root, cider.

*Odor:* @ 100%. Green, fruity, fresh, fatty and vegetablelike.

*Taste:* @ 2 ppm. Green, bodied and waxy.

*Taste:* @ 4 ppm. Green, bodied, fresh, waxy and leafy.

*Possible applications:* The fresh, green (and slightly unripe) notes of this material will add fresh impact to pome fruit flavors like apple, pear and quince. It will also be a welcome addition to vegetable flavors in which green notes predominate, like avocado, watercress, broccoli, lettuce and olive.

► **Kerry Flavor Systems US LLC**; [www.kerry.com](http://www.kerry.com)

## Mixed ionones, natural, 50% in ethanol

*Source:* Kerry Flavor Systems US LLC  
FEMA# 2594, CAS# 127-41-3

*Natural occurrence:* Blackberry, roasted almonds, brandy, black currant, raspberry, tea, tobacco, plum.

*Odor:* @ 0.5%. Petrol-like impact, floral, berrylike, waxy, woody with a tealike nuance.

*Taste:* @ 0.5 ppm. Floral, berrylike, perfumy and sweet with woody, musky undertones.

*Taste:* @ 1 ppm. Perfumy, chemical, floral, berry, woody, sweet and musky.

*Possible applications:* This is a very powerful component that will lend heart notes to most berry flavors including blackberry, raspberry, cherry, blueberry, grape and strawberry when used at less than 1 ppm. Other flavor areas where it will be an asset are in blended fruit flavors like red licorice and Swedish Fish.

► **Kerry Flavor Systems US LLC**; [www.kerry.com](http://www.kerry.com)

## Cocoa extract F08738

*Source:* Kerry Flavor Systems US LLC  
GRAS, Natural

*Odor:* @ 100%. Cocoa, roasted, sweet, rich, brown and tobaccolike with a hint of the barnyard.

*Taste:* @ 0.15% in 3% sucrose-sweetened water. Cocoa, bitter, slightly earthy and slightly fenugreeklike.

*Possible applications:* This material will add full-bodied notes to all chocolate/cocoa flavors and blends thereof.

► **Kerry Flavor Systems US LLC**; [www.kerry.com](http://www.kerry.com)

## Butterscotch furanone, natural (synonym: mango furanone, 2,5-dimethylfuran-3-one)

*Source:* Kerry Flavor Systems US LLC  
FEMA# 4101, CAS# 1400-67-0

*Natural occurrence:* Bread, coffee, mango, wild rice, yellow passion fruit.

*Odor:* @ 100%. Acetonelike impact, toasted, very sweet, caramellic, nutty and slightly buttery with a subtle, fruity note.

*Taste:* @ 4 ppm. Sweet brown, caramellic.

*Taste:* @ 8 ppm. Sweet, nutty, bready and caramellic.

*Possible applications:* Also known as mango furanone, this product will add to the profile of many brown flavors such as butterscotch, caramel, chocolate, coffee and maple. Nut flavors that will be enhanced by its addition are hazelnut, pecan, walnut, etc. Its sweet, brown-toasted notes will also lend character to grilled fruit flavors as well as toasted coconut, BBQ, roasted meat and soy flavors.

► **Kerry Flavor Systems US LLC**; [www.kerry.com](http://www.kerry.com)

## Chocolate extract F12105

*Source:* Kerry Flavor Systems US LLC  
GRAS, Natural

*Odor:* @ 100%. Sweet, dark chocolate, roasted, slightly nutty, brown and tobaccolike.

*Taste:* @ 0.15% in 3% sucrose-sweetened water. Dark chocolate, bitter, cocoa powderlike.

*Possible applications:* This very characteristic material can be used as part of a complex or solo to impart true dark chocolate notes to all flavors of this type and its variations on the theme.

► **Kerry Flavor Systems US LLC**; [www.kerry.com](http://www.kerry.com)

## **Aquaflor (synonym: methoxymelonal)**

Source: Bedoukian Research

FEMA #4745-interim, CAS# 62439-41-2

Not yet found in nature

Odor: @ 1%. Green, floral, melonlike, sweet, fatty and cucumberlike.

Taste: @ 2 ppm. Melonlike, fresh, green, cooling and slightly cucumberlike.

Taste: @ 4 ppm. Melonlike (particularly watermelon), green, cucumber and fatty.

Possible applications: This imminently FEMA compound is a very nice addition to the melon, watermelon and honeydew arsenal. At lower levels, it will enrich cucumber and possibly

other vegetable flavors as well as prickly pear and pome flavors such as apple, pear and quince, and some tropicals such as guava and kiwi.

►**Bedoukian Research**; [www.bedoukian.com](http://www.bedoukian.com)

## **Hexyl propionate, natural**

Source: SAFC

FEMA 2576, CAS# 2445-76-3

Natural occurrence: Ambrette seed, apple, chamomile, gruyere cheese, cocoa, hops, melon rum and osmanthus plum.

Odor: @ 100%. Green, fresh, fruity, waxy and rummy with a floral nuance.

Taste: @ 1 ppm. Green, fruity, fresh and waxy.

Taste: @ 2 ppm. Waxy, green, fresh, fruity and lightly floral.

Possible applications. This oldie-but-goodie chemical can be put to good use adding fresh, green, fruity notes in apple, pear, pineapple, melon, strawberry, guava and kiwi flavors to say the least. At levels below 1 ppm, it might also be considered to flesh out fresh, green character in vegetable flavors such as cucumber and watercress.

►**SAFC**; [www.safcglobal.com](http://www.safcglobal.com)

## **Pearlate (synonym: (Z)-3-octen-1-yl propionate)**

Source: Bedoukian Research

FEMA #4189, CAS# 91434-03-9

Not yet found in nature

Odor: @ 1%. Pearlike, fresh fruity, green, waxy and slightly floral.

Taste: @ 0.5 ppm. Green, pearlike, fruity and waxy.

Taste: @ 2 ppm. Green, pearlike, fruity, fresh, waxy and slightly floral.

Possible applications: This material lives up to its Bedoukian moniker. Its fresh, pearlike quality will also complement other fruit flavors like apple, guava, pineapple, melon, kiwi, strawberry, peach, mango and maybe even cucumber.

►**Bedoukian Research**;  
[www.bedoukian.com](http://www.bedoukian.com)

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