



# 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](http://www.PerfumerFlavorist.com).

## Black Currant Absolute (synonym: Bourgeons de Cassis Absolute)

Source: Berje

FEMA# 2346, CAS# 97676-19-2

Odor: @ 1%. Fresh, green, piney, cooling, fruity with a slight sulfuric underlying note.

Taste: @ 2 ppm. Herbal, piney and fruity.

Taste: @ 5 ppm. Herbal, berrylike, terpeney, fresh and fruity.

Possible applications: This material contributes unique notes to mint oral hygiene flavors, tropical fruits, peach, berry and even some wine flavors, particularly sauvignon blanc.

► **Berje**; [www.berjeinc.com](http://www.berjeinc.com)

## 9-Decenoic Acid

Source: Bedoukian Research

FEMA# 3660, CAS# 14436-32-9

Natural occurrence: Beer, wine, parmesan cheese.

Odor: @ 100%. Waxy, animal fatlike and slightly rancid.

Taste: @ 20 ppm. Waxy, fatty, creamy with slightly oxidized notes.

Taste: @ 40 ppm. Creamy, waxy and fatty with mouthfeel.

Possible applications: With its fatty notes and mouthfeel quality, 9-decenoic acid is a good addition to all dairy flavors to lend additional support to the lactones and fatty acids as well as its isomer, milk lactone. Fat replacers like tallow flavors are also a good fit for this material.

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

## δ-2-Dodecenolactone

Source: Charabot

FEMA# 3802, CAS# 16400-72-9

Natural occurrence: Massoia bark oil.

Odor: @ 100%. Oily, creamy, fatty with musty notes.

Taste: @ 2 ppm. Fatty, waxy, dairylike with good mouthfeel.

Taste: @ 4 ppm. Dairylike, oily with good mouthfeel.

Possible applications: This homologue of massoia lactone can be used to add body and dairy notes especially to butter, cream, milk and fresh cheese flavors. Similarly, its oily character can be put to good use in nut flavors like Brazil, pecan and macadamia.

► **Charabot**; [www.charabot.com](http://www.charabot.com)

## Ethyl Vanillin Propylene Glycol Acetal

Source: Bedoukian Research

FEMA# 3838, CAS# 68527-76-4, Not yet found in nature

Odor: @ 100%. Sweet, smoky and creamy with slightly woody undertones.

Taste: @ 20 ppm. Smoky and vanillinlike.

Taste: @ 40 ppm. Smoky, vanillinlike and creamy.

Possible applications: This is not an especially interesting material since ethyl vanillin is the preferred standard and also widely available. But when there are stability issues or limitations on aldehyde use, this is the material of choice to deliver virtually the same character.

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

## Lauryl Alcohol (synonym: Dodecanol)

Source: Penta Manufacturing Co.

FEMA# 2617, CAS# 112-53-8

Natural occurrence: Ambrette seed oil, violet leaf absolute, lime oil, mushroom, whiskey, roasted peanut.

Odor: @ 100%. Heavy, soapy, animal fatlike, slightly floral and slightly citrus peel-like.

Taste: @ 5 ppm. Waxy, soapy and fatty.

*Taste:* @ 10 ppm. Tallowlike, soapy, waxy with nuances of cilantro.

*Possible applications:* This alcohol is highly reminiscent of soap and possesses a waxy note. Thus, it can be used in fat replacers, hard Italian cheese flavors and any other applications where a hard fat note is needed.

► **Penta Manufacturing Co.;** [www.pentamfg.com](http://www.pentamfg.com)

### **Methyl Dihydrocinnamate Natural**

*Source:* Alfrebro/Cargill  
FEMA#2741, CAS# 103-25-3

*Natural occurrence:* Chinese rhubarb, cistus oil, Tabasco pepper, various orchid species.

*Odor:* @ 100%. Balsamic, spicy and berrylike.

*Taste:* @ 2 ppm. Bodied, slightly cinnamic with underlying fruity tones.

*Taste:* @ 4 ppm. Fruity body, candylike, strawberrylike with cinnamic afternotes.

*Possible applications:* This interesting material lends a certain degree of heaviness similar to fruit nectars. Its berrylike notes could be used as a raspberry ketone modifier; it can also be used in other flavors of this type, especially strawberry and blackberry. Other suitable application areas for this material include peach, vanilla and candy-type flavors.

► **Alfrebro/Cargill;** [www.cargill.com](http://www.cargill.com)

### **4-Methyl-2-Phenyl-Pental (synonym: Cocoa Pental)**

*Source:* Bedoukian Research  
FEMA# 3200, CAS# 26643-91-4

*Natural occurrence:* Cocoa, potato chips, tea, roasted peanuts, hazelnuts, macadamia nuts.

*Odor:* @ 100%. Cocolike, honey, floral with an underlying chemical note.

*Taste:* @ 1 ppm. Cocolike, malty and nutty.

*Taste:* @ 5 ppm. Cocolike, nutty and brown.

*Possible applications:* This material contributes depth to brown flavors like coffee, honey and nut. When used along with its heavier cousin, methylphenylhexenal, it contributes a deeper dark cocoa profile in chocolate flavors.

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

### **Vanilla Absolute Madagascan C1577**

*Source:* Berje/Sensient  
FEMA# 3105, CAS# 8024-06-4

*Odor:* @ 100%. Sweet, vanillin, slightly smoky, woody and balsamic.

*Taste:* @ 5 ppm. Vanillin, creamy, resinous with slightly brown notes.

*Taste:* @ 10 ppm. Vanillin, caramellic and creamy.

*Possible applications:* This CO<sub>2</sub> offering is a slurry of solids (vanillin) and liquid and should probably be put into solution after purchase to guarantee a homogenous product. That said, this material contributes lovely character and depth to all vanilla and brown flavors such as chocolate, toffee, caramel, cooked milk, cream and sweet dairy.

► **Berje;** [www.berjeinc.com](http://www.berjeinc.com)

### **Vanillin Oleoresin C3017**

*Source:* Berje/Sensient  
FEMA# 3106, CAS# 8023-78-7

*Odor:* @ 100%. Sweet, brown, creamy with an underlying full-bodied vanilla note.

*Taste:* @ 0.002%. Sweet, brown and vanillalike.

*Taste:* @ 0.004%. Sweet, vanillalike, caramellic, creamy and slightly cocoalike.

*Possible applications:* This is a solidly characteristic product which fits very well into any vanilla, chocolate, caramel, cream, cooked milk and/or other sweet dairy flavor.

► **Berje;** [www.berjeinc.com](http://www.berjeinc.com)

### **Violet Leaf Absolute**

*Source:* Robertet  
FEMA# 3110, CAS# 8024-08-6

*Odor:* @ 1%. Green, musty, slightly woody, waxy and sweet.

*Taste:* @ 5 ppm. Green and melon-cucumberlike.

*Taste:* @ 10 ppm. Green, melon-cucumberlike and waxy.

*Possible applications:* The waxy greenness of violet leaf absolute is very useful in enhancing existing green notes in cucumber and melon flavors, especially honeydew and watermelon. It could also be used to add green depth in vegetable and fruit flavors, such as apple and pear.

► **Robertet;** [www.robertet.com](http://www.robertet.com)

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