



# Organoleptic Characteristics of Flavor Materials

Gerard Mosciano

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## Barley Malt Distillate Natural

*Source:* Moore Ingredients

*Odor:* @ 100 percent. Sweet, warm, strong



brown malt, cooked, syrupy caramel and cooked with tomato and vegetative notes, molasses-like, cooked beer wort and fermented with a sweet raisin after note.

*Taste:* @ from 0.05-0.10 percent. Strong sweet, lingering malty molasses, toasted bread, slightly

sugar syrupy-like with a fermented beer nuance. Fruity raisin and prune-like with honey and yeasty nuances.

*Possible applications:* Malt, chocolate, beer, beef, bread, sugar modifiers, maple, molasses, honey, raisin, brown sugar and cereal flavors.

► **Moore Ingredients**; tel: 513-881-7144; [www.moorelab.com](http://www.moorelab.com)

## Diethyl Succinate Natural

*Source:* IFF

FEMA# 2377, CAS#123-25-1

*Natural occurrence:* Apple, cocoa, grape brandy, whiskey and wine.

*Odor:* @ 1.0 percent. Fruity, waxy, floral and slightly musty.

*Taste:* @ from 10-100 PPM. Chemical earthy, fruity with a pulpy mouthfeel.

*Possible applications:* Cocoa, apple, pear, peach, apricot, cranberry and whiskey.

► **IFF**; tel: 732-335-2616; [www.iff.com](http://www.iff.com)

## Dihydroxy Menthofurolactone (Synonym: mint lactone)

*Source:* Aldrich Chemical

FEMA# 3764, CAS# 11341-72-5, Nature identical

*Natural occurrence:* Peppermint and pennyroyal oil, *Mentha arvensis*.

*Odor:* @ 10 percent. Sweet, creamy coumarinic, slightly powdery coconut, brown vanilla-like and slightly bread.

*Taste:* @ 20 PPM. Creamy, coconut, coumarin, milky lactonic with a slight minty and anisic nuance.

*Possible applications:* Condensed milk, coconut, coumarin, vanilla, cakey nuances, cream notes, dark cherry and mint depth notes.

► **Sigma-Aldrich**; tel: 800-325-5832; [www.sigmaaldrich.com](http://www.sigmaaldrich.com)

## 2,3-Dimethyl Benzofuran

*Source:* Aldrich

FEMA# 3535, CAS# 3782-00-1, Nature identical

*Natural occurrence:* Latakia tobacco and cade oil.

*Odor:* @ 1.0 percent. Chemical tar-like, phenolic, smoky, tobacco, slightly pungent with a hint of black licorice drops, leather, cade oil and smoky bacon meaty.

*Taste:* @ 2 PPM. Chemical, burnt woody, coumarin-like,

tobacco, whiskey and slightly fusel like, tarry with a lingering aftertaste.

*Possible applications:* Tobacco, smoke flavors, indo vanilla, coumarin, whiskey, smoky savory nuances.

► **Sigma-Aldrich**; tel: 800-325-5832;  
[www.sigmaaldrich.com](http://www.sigmaaldrich.com)

### Ethyl-2,4-Decadienoate Natural

*Source:* Natural Advantage

FEMA# 3148, CAS# 3025-30-7

*Natural occurrence:* Apple, pear, grape, pear brandy and quince.

*Odor:* @ 1.0 percent. Sweet ripe pear, creamy and slightly fatty with fruity green waxy apple fleshy nuances.

*Taste:* @ 5 PPM. Ripe pear, green fruity, waxy apple, tropical notes, fatty golden delicious apple fleshy.

*Possible applications:* Guava, melon, pear, apple, banana, kiwi, grape, golden delicious apple, fruit cocktail juices, fruit nectar, mamey and other tropical backgrounds.

► **Natural Advantage**; tel: 732-274-9683;  
[www.natural-advantage.net](http://www.natural-advantage.net)

### Ethyl-2-Methyl-3-Pentenoate (Synonym: ethyl oxanoate 369)

*Source:* IFF

FEMA# 3456, CAS# 1617-23-8, Not reported found in nature

*Odor:* @ 1.0 percent. Sweet estry, fresh and juicy fruity, green and slightly pungent with apple, pear, banana, pineapple and tutti frutti notes.

*Taste:* @ 10 PPM. Sweet, ripe fruity, apple, pineapple, strawberry-like with hints of melon.

*Possible applications:* Watermelon, pineapple, blueberry, cherry, apple, strawberry, mint, cantelope, honeydew, fruit nectars and tutti frutti blenders.

► **IFF**; tel: 732-335-2616; [www.iff.com](http://www.iff.com)



### 3-Ethyl Pyridine

*Source:* Aldrich

FEMA# 3394, CAS# 536-78-7, Nature identical

*Natural occurrence:* Coffee, cooked chicken, dried bonito, krill, tea and Virginia tobacco.

*Odor:* @ 1.0 percent. Chemical, grainy, beany, musty and earthy, leafy tobacco-like with nutty nuances of peanut and coffee with raw potato nuances.

*Taste:* @ 5 PPM. Musty, dry leafy, grainy, slightly phenolic and pyridine-like with lingering caramellic, nutty and meaty aftertaste notes.

*Possible applications:* Coffee, potato, grain flavors, tea, tobacco, nut, caramel and meat nuances.

**Sigma-Aldrich**; tel: 800-325-5832;  
[www.sigmaaldrich.com](http://www.sigmaaldrich.com)

### 3,4-Hexanedione (Synonym: dipropionyl)

*Source:* Aldrich

FEMA# 3168, CAS# 4437-51-8,

Nature identical

*Natural occurrence:* Cauliflower and coffee.

*Odor:* @ 1.0 percent. Sweet buttery, creamy, slightly cooked caramel and burnt sugary reminiscent of ghee and eggy vanillas.

*Taste:* @ 5 PPM. Sweet buttery, creamy, pound cake and egg caramel-like with vanilla nuances.

*Possible applications:* Baked cakes, egg flavors, butter vanilla, caramel, cream, toffee, butterscotch and dolce de leche.

► **Sigma-Aldrich**; tel: 800-325-5832;  
[www.sigmaaldrich.com](http://www.sigmaaldrich.com)



### Iso Butyl Furan Propionate

*Source:* IFF

FEMA# 2198, CAS# 105-01-1, Artificial, not reported found in nature

*Odor:* @ 1.0 percent. Sweet fruity, ripe pineapple, cherry, slightly cinnamon spicy, brown caramel and slightly

balsamic.

*Taste:* @ 10 PPM. Winey, fruity pineapple, cherry and honey with slight spicy cinnamonic and berry nuances.

*Possible applications:* Nut flavors, caramel, cherry, pineapple and pear, cinnamon nuances, various fruit blends, brandy and baked goods.

► **IFF**; tel: 732-335-2616; [www.iff.com](http://www.iff.com)

### Iso Propyl Myristate

*Source:* Fleurchem

FEMA# 3556, CAS# 110-27-0, Nature

identical

*Natural occurrence:*

Kumquat and plum brandy.

*Odor:* @ 1.0 percent.

Sweet, waxy, weakly milk-like.

*Taste:* @ 20 PPM. Oily,

sweet, dairy waxy with creamy nuances.

*Possible applications:* Cream, coconut, cheese and other dairy notes.

► **Fleurchem**; tel: 845-341-2100; [www.fleurchem.com](http://www.fleurchem.com)



### 2-Methyl Butyric Acid Natural

*Source:* IFF

FEMA# 2695, CAS# 116-53-0

*Natural occurrence:* Apple, apricot, cider, cocoa, cranberry, grape, grape brandy, oriental tobacco, strawberry, vinegar, whiskey.

*Odor:* @ 1.0 percent. Acidic sour, pungent, ripe fruit leather, lingonberry, dirty cheesy, fermented pineapple fruity with a woody nuance.

*Taste:* @ 10 PPM. Dirty, acidic sour, ripe fruity with a lingering cheesy nuance.

*Possible applications:* Strawberry, berry, cheddar cheese, apricot, pineapple, butter, fruit, cranberry, peach, apricot, creamy dairy notes.

► **IFF**; tel: 732-335-2616; [www.iff.com](http://www.iff.com)

### 4-Methyl Octanoic Acid

*Source:* Treatt USA

FEMA# 3575, CAS# 54947-74-9, Nature identical

*Natural occurrence:* Cooked mutton and lamb.

*Odor:* @ 1.0 percent in PG. Waxy, fatty, meaty, reheated beef-like with a slightly lactonic cheesy nuance.

*Taste:* @ 10 PPM. Fatty, waxy, creamy lactonic with a satiating fatty mouthfeel.

*Possible applications:* Condensed milk and creamy nuances, savory notes for lamb, goat and other meat flavors.

► **Treatt USA**; tel: 800-866-7704; [www.treatt.com](http://www.treatt.com)

### Molasses Distillate Natural

*Source:* Moore Ingredients

*Odor:* @ 100 percent. Sweet, sugary, honey, smoky, brown, slightly fusel-like, syrupy with toasted/burnt caramellic and molasses notes.

*Taste:* @ 0.5 percent. Sweet, caramel brown sugary, honey, molasses, brunt brown with earthy bitter notes.

*Possible applications:* Molasses, nut nuances, caramel, BBQ sauces, vanilla nuances, coffee, brown sugar, toffee and butterscotch.

► **Moore Ingredients**; *tel:* 513-881-7144;  
*www.moorelab.com*

#### **4-Phenyl-3-Buten-2-one Natural (Synonym: benzylidene acetone)**

*Source:* Alfrebro/Degussa

FEMA# 2881, CAS# 122-57-6

*Natural occurrence:* Soybeans and Virginia tobacco.

*Odor:* @ 1.0 percent. Sweet, fruity and jamy cherry-like, aldehydic cinnamon spicy, herbal, anisic, balsamic, toasted almond nutty and woody with slight powdery vanilla nuances.

*Taste:* @ from 5-10 PPM. Aldehydic, coumarinic and balsamic, slightly nutty, floral and fruity with woody nuances.

*Possible applications:* Balsamic notes, dairy nuances, fruity notes for strawberry, coconut, cherry and red fish confections, vanilla, coconut and chocolate.

► **Alfrebro/Degussa**; *tel:* 33-49-309-3111; *www.alfrebro.com*

#### **Pulegone Mercaptan Natural (Synonyms: mangone, p-menth-2-one, thiomenthone)**

*Source:* IFF

FEMA# 3177, CAS# 89-83-8

*Natural occurrence:* Buchu Oil.

*Odor:* @ 0.001 percent. Sweet, pungent, minty and piney, buchu-like and catty, sulfurous, metallic, Thiomenthone-like, blackberry, blackcurrant and grape fruity, with an earthy background.

*Taste:* @ 5 PPM. Winey, sulfurous and catty, metallic, tropical, slightly durnian-like, grape, blackcurrant, blackberry with a somewhat creamy mouth feel.

*Possible applications:* Raspberry, grape, blackcurrant, blackberry, tropical fruits, apricot, peach, pineapple, cassis and coffee.

► **Treatt USA**; *tel:* 800-866-7704;  
*www.treatt.com*

#### **Treattarome Coffee Distillate, Full Roast**

*Source:* Treatt USA

*Odor:* @ 100 percent. Roasted coffee, nutty, beany and ashy, caramel, burnt, slightly smoky with cocoa nuances.

*Taste:* @ from 10-100 PPM. Dark roast fresh brewed beany coffee, cocoa, brown with caramel and whiskey burnt nuances,

*Possible applications:* Roasted coffee beverages, roasted brown notes, nut nuances, whiskey, cocoa and chocolate nuances.

► **Treatt USA**; *tel:* 800-866-7704;  
*www.treatt.com* ■