



Organoleptic Characteristics of Flavor Materials

Gerard Mosciano

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

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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.

Benzyl Isothiocyanate

Source: SAFC

FEMA# 4428, CAS# 622-78-6, Nature identical

Natural occurrence: Watercress, nasturtium, papaya and endive.

Odor: @ 1.0%. Vegetative cabbage and radishlike, green with a musty sulfurous earthiness reminiscent of mustard greens.

Taste: @ 0.5 ppm. Green vegetative cabbage, kimchi, radish and wasabilike with green leafy nuances and imparting a strong trigeminal tongue numbing and raspy sensation.

Possible applications: Mustard, horseradish, vegetative nuances for cabbage, radish and watercress, tropical papaya mouthfeel effects.

► SAFC; sigmaaldrich.com



Brandy Extract CO₂ (#55008)

Source: Mane

Natural

Odor: @ 1.0%. Fusel alcoholic and wine leeslike with woody casky and dry sherrylike notes. It also has nuances of caramel, molasses, whiskey and Scotch.

Taste: 1-5 ppm. Sweet rummy alcoholic, brown, fusel-like with wine lees and fruity apple nuances.

Possible applications: Cordials, whiskey, brandy, toffee, sherry, custard and eggnog.

► Mane; mane.com

Cassia Oil Redistilled 0.05% Coumarin

Source: Citrus & Allied Essences, Ltd.

FEMA# 2258, CAS# 8007-80-5,

Natural



Odor: @ 1.0%. Sweet cinnamon, woody, spicy with some woody and burning nuances.

Taste: @ 10 ppm. Sweet cinnamon, spicy and woody with a slight burning sensation.

Possible applications: Cinnamon flavors, oral care products, confections, ketchup spice blends, barbecue sauces, cola.

► Citrus & Allied Essences, Ltd.; citrusandallied.com

Clary Amber (#ee-17289)

Source: Bontoux Inc.

Natural

Odor: @ 1.0%. Deep herbal, woody with orris and cedar notes, aromatic with a slightly smoky tropical fruit depth.

Taste: @ 10 ppm. Woody cedar and pinelike with orris and cordial nuances.

Possible applications: Woody and balsamic notes, tobacco, incense and fragrance applications.

► Bontoux Inc.; bontoux.com

Cypress Absolute (#ee-17291)

Source: Bontoux Inc.

Natural

Odor: @ 1.0%. Green, herbal, woody cedarlike with slight gin and cordial nuances.

Taste: @ 10 ppm. Cordial and ginlike, woody, herbal, incenselike with green tropical fruity nuances.

Possible applications: Gin, mango, kiwi, woody nuances for whiskey toners, herbal nuances.

► Bontoux Inc.; bontoux.com



Fresh Peppermint Absolute P&N (#ee-10488)

Source: Bontoux Inc.

Natural

Odor: @ 1.0%. Cooling, green fresh peppermint, leafy and herbal with creamy nuances.
Taste: @ 10 ppm. Green, fresh, leafy cooling minty peppermint.
Possible applications: Confections, mouthwashes and other oral care products and herbal nuances.

► **Bontoux Inc.;** *bontoux.com*

Grapefruit Oil HCF (#af-1706)

Source: Flavor Materials International Natural

Odor: @ 1.0%. Citrus grapefruit, clean aldehydic with tropical nuances.

Taste: @ 10 ppm. Musty grapefruit, citrus orange with a woody bite and a fresh peely nuance.

Possible applications: Grapefruit, citrus punches, beverage and confection applications.

► **Flavor Materials International;** *flavormaterials.com*



2-Isobutyl-4-methyl-1,3-dioxolane, mixed isomers

Source: SAFC

FEMA# 4286, CAS# 18433-93-7, Artificial

Odor: @ 10.0%. Sweet, ethereal, musty and slightly fermented, dairylike with fruity apple and banana nuances.

Taste: @ 20ppm. Creamy, cocoa, woody, juicy fruit with apple, pineapple and dairy cheesy nuances.

Possible applications: Italian cheeses, dairy applications, apple, pineapple and cocoa nuances.

► **SAFC;** *sigmaaldrich.com*



2-Methyl Acetophenone

Source: SAFC

FEMA# 4316, CAS# 577-16-2, Nature identical

Natural occurrence: Carambola.

Odor: @ 1.0%. Sweet, naphthyl, cherry and almond, solventlike phenol and toluenelike with berry, floral and coumarinlike nuances.

Taste: @ 5 ppm. Nutty, cherry, almond, and coumariniclike.

Possible applications: Vanilla, cherry, almond, coumarin and various nut nuances.

► **SAFC;** *sigmaaldrich.com*



2-Methylbenzoxazole (synonym: 2-methyl-4,5-benzoxazole)

Source: SAFC

FEMA# 4398, CAS# 95-21-6, Artificial

Odor: @ 1.0%. Musty, nutty pecan, almond and pistachiolike, tobacco, vanillalike with brown roasted burnt rubber and cooked ricelike nuances.

Taste: @ 2.0 ppm. Musty, nutty, vanilla and ricelike.

Possible applications: Tobacco, rice, vanilla, nut nuances for pecan, almond and pistachio, cherry, coffee.

► **SAFC;** *sigmaaldrich.com*



Pseudoionone

Source: SAFC

FEMA# 4299, CAS# 141-10-6, Artificial

Odor: @ 1.0%. Floral sweet, woody, powdery, slightly citruslike, tealike with fruity, berry and Jordan almondlike nuances.

Taste: @ 5 ppm. Floral orrislike woody, berry and fruity with waxy peachy lactonic nuances.

Possible applications: Tea, peach, orris, berry and citrus nuances

► **SAFC;** *sigmaaldrich.com*

Rum Extract CO₂ (#55007)

Source: Mane

Natural

Odor: @ 1.0%. Sweet alcoholic rumlike, brown and fusel-like with a fruity raisin nuance.

Taste: 1–10 ppm. Sweet rummy, brown, alcoholic, Scotch whiskey with a medicinal smoky peaty nuance.

Possible applications: Vanilla, rum, whiskey, caramel, fruit cake and custard.

► **Mane;** *mane.com*



Sabinene Hydrate

Source: Symrise

FEMA# 3239, CAS# 546-79-2, Nature identical

Natural occurrence: Mandarin, peppermint and thyme essential oils.

Odor: @ 1.0%. Cooling minty, eucalyptus, herbal, woody pinelike with earthy green and tropical fruity nuances.

Taste: 5–10 ppm. Cooling, eucalyptus minty, herbal, earthy, camphoreous and becoming fenchonelike on dryout.

Possible applications: Mango, mint blends, herbal mixtures, forest berries, oral care and Italian mint confection blends.

► **Symrise;** *symrise.com*

Spearmint Oil HCF (#af-17313)

Source: Flavor Materials International

Natural

Odor: @ 1.0%. Spearmint, carvone rich, slight cooling minty with sweet confection notes.

Taste: @ 10 ppm. Carvone spearminty, sweet, herbal and confectionlike.

Possible applications: Confections, oral care products such as mouthwashes and toothpastes, mojito blends.

► **Flavor Materials International;** *flavormaterials.com*

2,4,5-Trimethyl Oxazole

Source: SAFC

FEMA# 4394, CAS# 20662-84-4, Nature identical

Natural occurrence: Heated beef, cocoa, cooked pork, French fries, autolyzed yeast, cooked egg and fried chicken.

Odor: @ 1.0%. Slight pyridinelike, roasted vegetative, toasted Dutched cocoa background with a slight nutty nuance.

Taste: @ 1 ppm. Sweet roasted cocoa, coffee, chocolate, slightly seared savory beef, proteinous with green vegetative nuances.

Possible applications: Chocolate, Dutch cocoa, coffee, various savory meaty flavors, malt and toasted bread.

► **SAFC;** *sigmaaldrich.com*

