



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 Publishing Corporation, 336 Gundersen Drive, Suite A, Carol Stream, IL 60188-2403 USA; telephone 1-630-653-2155; fax 1-630-653-2192; www.PerfumerFlavorist.com.

Chocolate Concentrate (04-236-01)

Source: Mooreganics by A.M. Todd
Natural

Odor: Neat. Dark cocoa, powdery, rich chocolate, slightly burnt background reminiscent of molasses and malt.

Taste: Rosey, roasted dark chocolate/cocoa nib type, slightly bitter with a dry powdery finish.

Possible applications: Cocoa, chocolate, malt and molasses.

► **Mooreganics**; tel: 1-513-881-7144; www.moorelab.com



Diethyl Trisulfide

Source: Oxford Chemicals Ltd.

FEMA# 4029, CAS# 3600-24-6, Nature identical

Natural occurrence: Durian and cooked beef.

Odor: @ 0.10%. Sulfurous, roasted garlic, alliaceous, savory cooked beef and chicken with vegetative and tropical nuances.

Taste: @ 0.1–0.5 PPM. Sulfurous, fried onion and garlic, vegetative with a lingering cooked alliaceous aftertaste.

Possible applications: Roasted and cooked onion and garlic, savory beef broth notes and tropical nuances.

► **Oxford Chemicals Ltd.**; tel: 44-(0)-1429-863555; www.oxfordchemicals.com

(+/-)-4-Ethyl Octanal (synonym: Excital)

Source: International Flavors & Fragrances

FEMA# 4117, CAS# 058475-04-0, Artificial

Odor: @ 0.10%. Waxy, fatty, milky lactatelike with citrus and rancid fatty muttonlike nuances.

Taste: @ 0.30 PPM. Waxy, aldehydic, fatty with mutton

and goat milklike notes and a rich fatty savory aftertaste.
Possible applications: Meat fat notes, goat milk and other fatty dairy applications, ghee, fat replacers.

► **International Flavors & Fragrances**;
tel: 1-732-329-4600; www.iff.com

Ethyl Propyl Disulfide

Source: Oxford Chemicals Ltd.

FEMA# 4041, CAS# 30453-31-7,

Nature identical

Natural occurrence: Durian, onion and cabbage.

Odor: @ 0.10%. Sulfurous, onion and garlic, brown roasted savory chicken and fatty duck notes with coffee and roasted nutty nuances.

Taste: @ 0.25 PPM. Brown onion and garlic sulfurous with roasted gamey fatty savory notes and slight fruity nuances.

Possible applications: Salad dressings, onion and garlic, savory meaty notes and fruity nuances.

► **Oxford Chemicals Ltd.**; tel: 44-(0)-1429-863555; www.oxfordchemicals.com



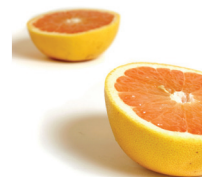
Grapefruit Extract

Source: Polarome International Inc.

Natural

Odor: @ 100%. Grapefruit citrus and peely with juicy, sweet zesty sweet orange nuances.

Taste: @ 0.02% in 0.01% CA acidified and 5% sugar sweetened water. Sweet grapefruit and orange with a real fresh juicy topnote; the extract has peel-like nuances.



Possible applications: Grapefruit, orange and lemon juicy notes for beverages.

► **Polarome International Inc.**; tel: 1-201-309-4500;
www.polarome.com

Keemun Tea CO₂ Extract

Source: Cargill Flavor Systems

Natural

Odor: Neat. Hay, strawlike, leafy black tea, floral with yerba maté musty nuances.

Taste: @ 0.10%. Musty, haylike, leafy tea with woody casky and slight smoky nuances.

Possible applications: Tea lift, peach, apricot and apple fruity nuances.

► **Cargill Flavor Systems**; tel: 1-513-539-7373;
www.cargillflavorsystems.com

Lemon Oil Wingergrade Brown

Source: Global Essence Inc.

Natural

Odor: @ 1.0%. Citrus lemon, tart and juicy lemonade with cold pressed limelike nuances.

Taste: @ 10 PPM in 5% sugar + 0.1% CA. Tangy lemon, juicy, slight lime with full bodied citrus and fruity nuances.

Possible applications: Tropical punches, Lemonhead confections and other confection nuances, lemonade beverages.

► **Global Essence Inc.**; tel: 1-732-677-1100;
www.globalessence.com



2-Methyl-1,3-Dithiolane

Source: Oxford Chemicals Ltd.

FEMA# 3705, CAS# 5616-510-3, Nature identical

Natural occurrence: Cooked beef.

Odor: @ 0.10%. Savory meaty pork and beeflike with sulfurous onion and garlic notes and catty fruity black currant nuances.

Taste: @ 0.30 PPM. Roasted savory and brothy pork meaty, browned onion and garlic with tropical fruity nuances.

Possible applications: Pork and beef, roasted beef pot roast, nutty nuances, coffee and durian.

► **Oxford Chemicals Ltd.**; tel: 44-(0)-1429-863555;
www.oxfordchemicals.com

2-Methyl-3,5- or 6(Furfurylthio)-Pyrazine

Source: Oxford Chemicals Ltd.

FEMA# 3189, CAS# 65530-53-2,

Artificial

Odor: @ 0.10%. Sulfurous, nutty, coffeelike, grain and cereal-like with garlic nuances.

Taste: @ 1.0 PPM. Coffee, roasted nutty, burnt cereal and grainlike with caramel and cocoa nuances.

Possible applications: Baked applications, popcorn, bread, dulce de leche, caramel, meaty nuances and coffee.

► **Oxford Chemicals Ltd.**; tel: 44-(0)-1429-863555;
www.oxfordchemicals.com



Orange Oil Italian Tarocco Organic (#18207)

Source: Global Essence Inc.

Natural

Odor: @ 1.0%. Orange, aldehydic, sweet, zesty peely with soapy valencene and candylike nuances.

Taste: @ 10 PPM in 5% sugar + 0.1% CA. Juicy, sweet pulpy orange with good aldehydic body and sweet candy sinensal-like nuances.

Possible applications: Orange, citrus punches, confections and chewing gum flavors.

► **Global Essence Inc.**; tel: 1-732-677-1100;
www.globalessence.com

2-Pentanone

Source: Firmenich

FEMA# 2842, CAS# 107-87-9, Nature identical

Natural occurrence: Apple, banana, blue and cheddar cheeses, butter, cocoa, coffee, rum, strawberry, Virginia tobacco, whiskey.

Odor: @ 1.0%. Impacting ethereal, fusel rum and whiskeylike, cheesy ketonic with a fermented fruity banana and cultured butter and Swiss cheeselike nuances.

Taste: @ 20 PPM. Impacting whiskey and rumlike, creamy and cheesy with fruity apple essencelike notes, plum and ripe banana and tropical nuances.

Possible applications: Apple essence, ripe banana, whiskey, rum, cultured dairy and cheese nuances, caramel and butterscotch.

► **Firmenich**; tel: 41-22-780-22-11; www.firmenich.com



trans-2-Pentenoic Acid

Source: SAFC

FEMA# 4193, CAS# 13991-37-2, Nature identical

Natural occurrence: Banana, beer and chicken fat.

Odor: @ 1.0%. Acidic, ripe fruity body, hard-grated Italian cheeselike with an old mutton fatty nuance.

Taste: @ 10 PPM. Cheesy, milky dairy, fruity body, tangy, tropical fruit nuances of jackfruit and durian.



Possible applications: Tropical fruit nuances for durian and jackfruit, hard Italian cheeses and other dairy nuances, strawberry and other fruity nuances.

► **SAFC**; tel: 1-800-227-4563; www.safcsupplysolutions.com

α-Pinene 95% ex. Orange

Source: MCI Miritz Citrus Ingredients LLC

FEMA# 2902, CAS# 80-56-8, Natural

Natural occurrence: Caraway, cardamom, carrot, cinnamon, orange and lemon oils, coriander, lovage, nutmeg, rosemary and many other essential oils.

Odor: @ 1.0%. Sweet, ethereal, juicy citrus, green musty with eucalyptol terpyness.

Taste: @ 5–50 PPM. Sweet, juicy, slightly citrusy, green and oily with a dry woody finish.

Possible applications: Citrus, spice oil reconstitutions, tropical fruits, mint, grapefruit, fresh notes for spices such as nutmeg.

► **MCI Miritz Citrus Ingredients LLC**; tel: 1-845-988-9920; www.miritz.de

Tangerine Oil Conc. SSTSS (HD4401)

Source: Lionel Hitchen (Essential Oils) Ltd.

Natural

Odor: @ 1.0%. Sweet fresh fleshy and juicy tangerine citrus with peely nuances of orange, mandarin and grape.

Taste: @ 5% sugar + 0.05% CA. Sweet fresh juicy tangerine with orange citrus nuances.

Possible applications: Tangerine, mandarin, clementine and orange notes.

► **Lionel Hitchen (Essential Oils) Ltd.**; tel: 44-(0)-1962-760815; www.lheo.co.uk

Tangerine Oil T Concentrate

Source: Treatt USA

Natural

Odor: @ 1.0%. Slightly harsh tangerine with a thymol nuance, leathery, dry and aldehydic on dryout with peely and orange citruslike nuances.

Taste: @ 10 PPM. Tangerine, dry, peely, citruslike and mildly herbaceous.

Possible applications: Tangerine, mandarin, citrus blends, juicy orange notes.

► **Treatt USA**; tel: 1-863-668-9500; www.treatt.com



Tangerine TSS (FN10613)

Source: Lionel Hitchen (Essential Oils) Ltd.

Natural

Odor: Neat. Ripe tangerine orange with mandarin overtones.

Taste: @ 5% sugar + 0.05% CA. Heavy, candy, tangerine orange with food pulpy notes and body.

Possible applications: Confections, bakery emulsion flavors for pound cake and beverage applications.

► **Lionel Hitchen (Essential Oils) Ltd.**; tel: 44-(0)-1962-760815; www.lheo.co.uk

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