



Organoleptic Characteristics of Flavor Materials

by Gerard Mosciano

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Grapefruit Extract Natural

Source: Polarome Natural

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

Taste: @ 0.02 percent in 0.01 percent CA acidified and 5 percent 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:* 201-309-4500; *www.polarome.com*

Ocimene, 3,7-Dimethyl-1,3,5-Octatriene

Source: Robertet

FEMA# 3539, CAS# 13877-91-3, Natural

Natural Occurrence: Basil, sage, fennel, native spearmint, parsley, passion fruit, pennyroyal, pepper, Scotch spearmint and mango.

Odor: @ 1 percent. Sweet, green, tropical, lime and mandarin-like with mango, herbal, woody lychee and citrus notes.

Taste: @ 5 PPM. Green, woody, fruity mango and guava tropical, fresh sweet lychee and citrus nuances.

Possible Applications: General tropical notes for mango, guava and lychee, citrus notes in tangerine, lime and

mandarin, herbal notes, celery, tea, kiwi, peach, nut nuances, chile and black pepper.

Robertet Inc.; *tel:* 201-337-7100; *jmcginnis@robertetusa.com*

L-Carvone

Source: Polarome

FEMA# 2249, CAS# 6485-40-1, Nature identical

Natural Occurrence: Caraway, citrus fruits, dill, grape brandy, marjoram, pepper, raspberry, spearmint, thyme and Virginia tobacco.

Odor: @ 1.0 percent. Spearminty, cooling, sweet spice with a fresh green herbal note.

Taste: @ 20 PPM. Minty, spicy, herbal, weedy and sweet with a caraway note.

Possible Applications: Mint boosters, spearmint, caraway and other spice blends, tropical nuances, oral care boosters, orange notes.

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

2,6-Dimethyl-6-Hepten-1-ol, α -Melonol

Source: Robertet

FEMA# 3663, CAS# 36806-46-9, Natural

Natural Occurrence: Not reported found in nature.

Odor: @ 1.0 percent. Green, oily melon rind, waxy with an alcoholic cucumber and citrus nuance.

Taste: @ 10 PPM. Green, waxy, oily, melon rind, cucumber, slightly vegetative with tallow and nut-like nuances.

Possible Applications: Watermelon, honeydew, cucumber, vegetative and citrus nuances, olive oil and tallow notes.

Robertet Inc.; tel: 201-337-7100;
jmcginnis@robertetusa.com

Ethyl Methyl Phenyl Glycidate, Aldehyde C-18

Source: Polarome

FEMA# 2444, CAS# 77-83-8, Artificial

Natural Occurrence: Not reported found in nature.

Odor: @ 1.0 percent. Sweet, fruity strawberry, berry with a slight cooked nuance.

Taste: @ 10 PPM. Sweet, berry, straw berry, tutti frutti, juicy fruit cherry with a slight floral nuance.

Possible Applications: Strawberry, raspberry, cherry, grape, blueberry, apricot, peach, tutti frutti.

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

Ethyl Vanillin

Source: Rhodia

FEMA# 2464, CAS# 121-32-4, Artificial

Natural Occurrence: Not found in nature.

Odor: @ 1.0 percent. Sweet vanillin, creamy, marshmallow-like with a dairy powdery and slight caramellic nuance.

Taste: @ 25 PPM. Sweet, vanilla, marshmallow, dairy creamy with a warm powdery caramellic nuance; approximately 3-times the flavor equivalency of vanillin.

Possible Applications: Vanilla flavors, ice cream, maple, eggnog, baked applications such as cake and cookie, milk flavors and condensed milk, marshmallow and other confections, caramel, mellowing smoothing agent for drugs and fruit flavors, chocolate and cocoa.

Rhodia; tel: 609-860-3032;
www.rhodia.com

Heliotropine

Source: Aldrich

FEMA# 2991, CAS# 120-57-0, Nature identical

Note: Heliotropine is approximately two-times the equivalency of vanillin.

Natural Occurrence: Tahitian vanilla, camphor wood, violet flowers.

Odor: @ 1.0 percent. Sweet, almond, vanilla, floral with a cherry pit creaminess and a woody coumarin and hay-like nuance.

Taste: @ 20 PPM. Almond macaroon cookie and Jordan almond candy nuance, creamy vanilla, spicy cream soda with a coumarin-like note.

Possible Applications: Wild cherry, vanilla, cola flavors, rum, almond, coumarin, sherry, nut, cream soda, maple and tutti frutti applications.

Aldrich Chemical Co. Inc.; tel: 414-273-3850;
www.sigmaaldrich.com

L-Carveol 95 Percent

Source: Aldrich

FEMA# 2247, CAS# 2102-59-2, Nature identical

Natural Occurrence: Citrus peels, Yuzu, black currant buds, caraway.

Odor: @ 1.0 percent. Sweet, cooling spearmint, minty, spicy caraway, piney and herbal with a citrus-like nuance.

Taste: @ 10 PPM. Sweet spicy, minty spearmint, caraway and celery-like with a woody nuance.

Possible Applications: Spice blends, nature identical mint top notes, confections, chewing gum and mouthwash flavors.

Aldrich Chemical Co. Inc.; tel: 414-273-3850;
www.sigmaaldrich.com

Cumin Seed Oil

Source: Frutarom

FEMA# 2343, CAS# 8014-13-9, Natural

Note: Cumin seed oil contains approximately 47.4 to 51.5 percent cuminic aldehyde, 12-22 percent α -terpinene, 10-15 percent p-cymene and 6-16 percent p-menth-1,3-dien-7-ol.

Odor: @ 1.0 percent. Spicy, characteristically herbal green, pungent, slightly dill-like in character, aromatic with a peppery chile-like nuance.

Taste: @ 5 PPM. Spicy pickle-like, slightly green, earthy with a woody chile nuance.

Possible Applications: Spice blends, melon, cucumber, dill, tomato, green pepper, chile, curry and other herbal ethnic spice blends, alcoholic cordial and nacho cheese notes.

Frutarom; tel: 201-861-9500; info@us.frutarom.com

2-Methyl Cyclohexanone, Methyl Anone

Source: Aldrich

FEMA# 3946, CAS# 583-60-8, Nature identical

Natural Occurrence: Mushrooms and french fried potatoes.

Odor: @ 1.0 percent. Ethereal, cooling, mushroom-like, vegetative with an earthy oily fried nuance.

Taste: @ 25 PPM. Impacting ethereal, vegetative, musty mushroom-like with a dirty earthy nuance.

Possible Applications: Mushroom, mint nuances, tropical notes, peppermint boosters.

Aldrich Chemical Co. Inc.; tel: 414-273-3850;
www.sigmaaldrich.com

3-Methyl Cyclohexanone

Source: Aldrich

FEMA# 3947, CAS# 591-24-2, Nature identical

Natural Occurrence: Japanese mint, peppermint, cornmint, pennyroyal, buchu, heated beef fat.

Odor: @ 1.0 percent. Minty, cooling, clean and impacting with a slight medicinal solvent nuance.
Taste: @ 15 PPM. Minty, sweet cooling and lifting and slightly ethereal solvent in impact, fresh and medicinal nuance

Possible Applications: Mint enhancers, tropical nuances, mouthwash and other oral care mint flavors, confections and chewing gum enhancers, cooking notes.

Aldrich Chemical Co. Inc.; *tel:* 414-273-3850;
www.sigmaaldrich.com

4-Methyl Cyclohexanone

Source: Aldrich
FEMA# 3948, CAS# 589-92-4,
Nature identical

Natural Occurrence: Mushrooms.

Odor: @ 1.0 percent. Musty solvent-like, lifting and ethereal; vegetative with an anise note.

Taste: @ 40 PPM. Musty, powdery, solvent-like with an oily anise note.

Possible Applications: Almond flavors, Jordan almonds, benzaldehyde modifiers, tropical and vanilla nuances.

Aldrich Chemical Co. Inc.; *tel:* 414-273-3850;
www.sigmaaldrich.com

Phenyl Salicylate

Source: Aldrich
FEMA# 3960, CAS# 118-55-8,
Artificial

Natural Occurrence: Not reported found in nature.

Odor: @ 2.0 percent. Floral, slightly minty and cooling, woody with balsamic honey-like nuances.

Taste: @ 20 PPM. Solvent-like, medicinal, powdery and slightly cooling.

Possible Applications: Honey, chocolate and minty nuances.

Aldrich Chemical Co. Inc.;
tel: 414-273-3850;
www.sigmaaldrich.com

4-Hydroxy Benzyl Alcohol

Source: Aldrich
FEMA# 3987, Nature identical
Natural Occurrence: Bourbon vanilla.

Odor: @ 10 percent. Solvent-like, alcoholic with a faint nutty, medicinal and antiseptic nuance.

Taste: @ 200 PPM. Solvent-like, phenolic medicinal, slightly astringent.

Possible Applications: Vanilla and sweet enhancers.

Aldrich Chemical Co. Inc.; *tel:* 414-273-3850; *www.sigmaaldrich.com*

4-Mercapto-4-Methyl-2-Pentanone

Source: Oxford
FEMA# 3997, CAS# 19872-52-7, Artificial
Natural Occurrence: Could find no natural occurrence.

Odor: @ 0.001 percent. Sulfurous, mild meaty-like, rare cooked hamburger, slightly pungent onion, garlic-like with a green tomato and a tropical nuance.

Taste: @ 0.02 to 0.05 PPM. This is one of David Rowe's high potency additives; savory meaty, corned beef, vegetative cooked onion and garlic-like; fuzzy peach-like with an interesting mouthfeel.

Possible Applications: Onion, savory beef meaty notes, tomato vegetative and tropical fruity nuances also blackcurrant, durian, peach and apricot.

Oxford Chemicals; *tel:* 44-1429-863-555; www.oxfordchemicals.com

2-(Methylthio)ethanol, 2-Hydroxyethyl Methyl Sulfide

Source: Aldrich

FEMA# 4004, CAS# 5271-38-5, Nature identical

Natural Occurrence: Durian, tomato and cooked shrimp.

Odor: @ 1.0 percent. Sharp, pungent, sulfurous, vegetative cabbage and kimchi-like; tomato, onion, horseradish and wabasi with meaty HVP-like nuances reminiscent of sulfurol.

Taste: @ 30 PPM. Rooty vegetable tomato and radish like with meaty and HVP nuances reminiscent of sulfurol.

Possible Applications: Tomato, cucumber, cheese nuances, savory notes, HVP enhancers, onion and radish, seafood and wabasi horseradish notes.

Aldrich Chemical Co. Inc.; *tel:* 414-273-3850; www.sigmaaldrich.com

2,4,6-Triisobutyl-5,6-Dihydro-4H-1,3,5-Dithiaine

Source: Oxford

FEMA# 4017, Artificial

Natural Occurrence: Could find no natural occurrence.

Odor: @ 1.0 percent. Burnt match-like, gassy mercaptan, burnt rubber savory notes of beef and chicken; the material has onion-, tomato- and nut-like nuances.

Taste: @ 1.0 to 2.5 PPM. Fried onion, pungent, roasted savory meaty beef and chicken notes; the material imparts tallow and crispy bacon nuances.

Possible Applications: Onion, savory roasted or grilled chicken, beef and bacon; vegetative nuances, chocolate and nutty notes, tallow and peanut butter nuances.

Oxford Chemicals; *tel:* 44-1429-863-555; www.oxfordchemicals.com

4-Hydroxy Benzaldehyde

Source: Aldrich

FEMA# 3984, CAS# 18278-34-7, Nature identical

Natural Occurrence: Bilberry.

Odor: @ 10.0 percent. A weak almond, balsamic character with a faint metallic nuance.

Taste: @ 300 PPM. More of a mouthfeel and texture component; the material has a slight musty nutty and vanilla extract nuance.

Aldrich Chemical Co. Inc.; *tel:* 414-273-3850; www.sigmaaldrich.com

4-Hydroxy Benzoic Acid

Source: Aldrich

FEMA# 3986, CAS# 99-96-7, Nature identical

Natural Occurrence: Apple juice, black currant, parmesan cheese, beer, grape brandy, cognac, rum, sherry, white and red wine, cocoa, raw peanuts.

Odor: @ 10.0 percent. Faint odor.

Taste: @ 150 PPM. More of a mouthfeel effect with a slightly tingly tangy acidic character with a hint of a creamy vanilla and cocoa note.

Possible Applications: Cocoa, cranberry, vanilla, alcoholic boosters.

Aldrich Chemical Co. Inc.; *tel:* 414-273-3850; www.sigmaaldrich.com

Sesame Oil Roasted, CO₂ Extract

Source: SKW Alfrebro

Natural

Odor: @ 1.0 percent. Musty, roasted and burnt, nutty peanut, sesame grainy with roasted coffee nuances.

Taste: @ 1.0 PPM. Roasted, burnt, nutty, coffee, peanut, sesame with an oily nuance.

Possible Applications: General nut flavors, especially peanut and almond, toasted grain notes, roasted coffee, popcorn and cocoa.

SKW Alfrebro; *tel:* 33-49-309-3111; www.flavors-fruit-systems.com ■