

Organoleptic Characteristics of Flavor Materials

Judith Michalski; judithmichalskillc@gmail.com

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/FFM*.

I 've always been excited about 'interviewing' new flavor raw materials. It's a reflection of my curious nature, a trait possessed by all flavorists. So when Jerry Mosciano asked if I'd like to assume the authorship of this column, I jumped at the chance. I've been evaluating along with Jerry for 20 years and know that he will be a hard act to follow. His commitment to our art/science is known throughout our industry. It is my hope to carry on in his footsteps and bring the same fine quality of information and understanding as he has.

Ammonium Isovalerate

FEMA# 2054, CAS# 7563-33-9, Nature identical Odor: @ 1%. Acidic, Italian hard cheese with fermented nuances of tobacco and walnut skin.

Taste: @ 10 ppm. Hard Italian cheese, Swiss cheese rind and dairylike with hay and light ammonia, snuff tobacco notes.

Possible applications: Italian, Swiss and cheeses in general, tobacco and snuff, hay, grape and nut nuances.

α -Amyl Cinnamyl Isovalerate

FEMA# 2067, CAS# 7493-80-3, Not yet found in nature *Odor:* @ 1%. Sweaty isovaleric acid, sweet heavy fruity candylike with honey, spicy and balsamic nuances.

Taste: @ 10 ppm. Sweet, fruity spicy cinnamic, floral with balsamic undernotes and with sweet syrupy candy fruity nuances of apple and blueberry.

Possible applications: Grape, blueberry, apple, tobacco, honey, balsamic nuances.

Amyl Cinnamaldehyde Dimethyl Acetal

FEMA# 2062, CAS# 91-87-2, Not yet found in nature *Odor:* @ 1%. Floral lily, spicy cinnamon, with berry nuances.

Taste: @ 5 ppm. Fruity, spicy, sweet cinnamon, winey with floral berry and fruity nuances reminiscent of apricot and peach with mouthwashlike nuances.

Possible applications: Apricot, peach, cinnamon and berry nuances.

Amyl Octanoate

FEMA# 2079, CAS# 638-25-5

Natural occurrence: Quince, grape brandy, strawberry.

Odor: @ 1%. Waxy, sweet, "circus peanuts-type" banana
with fatty Swiss cheese and cucumber skinlike nuances.

Taste: @ 5 ppm. Green vegetative, winey, fruity banana
with creamy nuances.

Possible applications: Banana, cheese, vegetative and winey nuances.

Anisyl Butyrate

FEMA# 2100. CAS# 6963-56-0

Natural occurrence: Anise seed oil

Odor: @ 1%. Sweet, anisic, woody, powdery, licoricelike with fruity, candy and vanillalike nuances.

Taste: @ 10 ppm. Anise seed hull, dried fruit, raisin, prune and datelike with cherry and plumlike red fruit notes and nuances of tobacco, vanilla and spice.

Possible applications: Vanilla, tobacco, raisin, prune, plum, cherry, anise, licorice confections and mouthwashes.

Benzyl Butyl Ether

FEMA# 2139, CAS# 588-67-0, Not yet found in nature *Odor:* @ 1%. Lifting ethereal, ripe fruity with notes of raspberry, strawberry, raisin and spicy nuances of tarragon and cinnamon.

Taste: @ 5 ppm. Dried fruity raisin and fig, with nuances of apple skin, raspberry, strawberry, cherry and grape. Possible applications: Raisin, fig, strawberry, cherry and grape.

Hydratropyl Alcohol (synonym: β-Methyl Phenethyl Alcohol)

FEMA# 2732, CAS# 1123-85-9, Not yet found in nature *Odor:* @ 1%. Floral lilac, powdery, slight honey with dried fruit and slight nutty havlike nuances.

Taste: @ 2 ppm. Floral, slight green vegetative with mung beanlike nuances.

Possible applications: Floral and powdery nuances, honey, red fruit and vegetative nuances.

3-Phenylpropyl Cinnamate (synonym: Hydrocinnamyl Cinnamate)

FEMA# 2894, CAS# 122-68-9

Natural occurrence: Benzoin Sumatra, Peru balsam, styrax.

Odor: @ 1%. Heavy, sweet balsamic, slightly cinnamon spicy with floral, honey and fruity grape nuances.

Taste: @ 5 ppm. Heavy, spicy cinnamon with floral nuances.

Possible applications: Depth notes for fruits, chewing gum, fruit punch notes, background notes in berries, cola, vanilla and honey flavors.

Materials provided by Penta Manufacturing Company; www.pentamfg.com

To purchase a copy of this article or others, visit www.PerfumerFlavorist.com/magazine.

4-Methyl Dihydrocyclopenta Pyrazine

(synonym: Corylone Pyrazine)

FEMA# 3306, CAS# 23747-48-0 Natural occurrence: Almond, heated beef, cocoa, coffee, filbert, peanut, pork, sesame oil.

Odor: @ 1%. Nutty, musty and earthy, peanut and filbert skins, roasted potato, sesame oil with roasted coffee, almond, amaretto and tarolike nuances.

Taste: @ 5 ppm. Roasted nut, musty, peanut butter, hazelnut and fresh nut meat, steamed rice nuances.

Possible applications: Potato, peanut and peanut butter, filbert, almond, amaretto, sesame, coffee, taro, rice and toffee.

3-Phenyl Propionic Acid (synonym: Hydrocinnamic acid)

FEMA# 2889, CAS# 501-52-0 Natural occurrence: Cistus oil, labdanum, raspberry, mushroom, mango, whiskey.

Odor: @ 1.0%. Sweet, fruity, berry, floral and herbal with notes of coumarin, cinnamon and woody orris.

Taste: @ 10 ppm. Good mouthfeel, slight herbal woody ionone berrylike with black berry, raspberry and blueberry notes and nuances of vanilla and tonka.

Possible applications: Blueberry, raspberry and blackberry, floral and woody nuances.