Organoleptic Characteristics of Flavor Materials

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Acetaldehyde ethyl *cis*-3-hexenyl acetal, natural (synonyms: *cis*-1-(1-ethoxyethoxy)-3-hexene, leaf acetal)

Source: SAFC
FEMA# 3775, CAS# 28069-74-1, Natural
Odor: @ 1%. Green, leafy, earthy and vegetablelike.
Taste: @ 2 ppm. Green, earthy, vegetablelike and musty.
Taste: @ 5 ppm. Green, vegetablelike and earthy, with a pungent, radishlike note.
Possible applications: The powerful, green earthy notes of this product will enhance vegetable flavors like green pepper, green beans, asparagus, cucumber, celery, lettuce, radish, watercress, broccoli and bean sprouts. These same notes, at much lower levels, can also add an unripe note to fruits, if such a quality is needed for the profile.
➤**SAFC;** *www.safcglobal.com*

Allyl heptanoate, natural

Source: SAFC
FEMA# 2031, CAS# 142-19-8, Natural
Not yet found in nature.
Odor: @ 100%. Sweet, fruity, waxy and pineapplelike.
Taste: @ 5 ppm. Waxy, fruity, apple/pineapplelike and green, with a metallic note.
Taste: @ 10 ppm. Waxy, green, fruity and canned pineapplelike, with a tropical nuance.
Possible applications: This old-line chemical was one of the first to be Flavor and Extract Manufacturers Association-registered GRAS (generally recognized as safe). It can be used as part of ester complexes, primarily in fruit flavors like apple, pineapple, pear, plum, banana, fruit punch, and tropicals such as kiwi, papaya and mango. It can also play an important role in the fruity notes of aged cheeses, especially Parmesan, Asiago and grana padano.
➤**SAFC;** *www.safcglobal.com*

Isopulegol, natural

Source: Natural Advantage
FEMA# 2962, CAS# 7786-67-6
Natural occurrence: Angelica seed, bergamot, eucalyptus, geranium, grapefruit and sage.
Odor: @ 100%. Sweet, cooling, minty and wintergreenlike.
Taste: @ 10 ppm. Sweet and mouth-drying, with a delayed cooling effect.
Taste: @ 20 ppm. Cooling, mentholic and slightly wintergreenlike.
Possible applications: The sweet, cooling characteristics of this material will be a good fit in all mint flavors, sweet spices and those intended for oral care. It may also be used to add subtle cooling fresh notes in herbal and melon flavors.
➤**Natural Advantage;** *www.natural-advantage.net*

Menthyl lactate, natural

Source: Natural Advantage
FEMA# 3748, CAS# 59259-38-0
Natural occurrence: Cornmint
Odor: @ 100%. Faint and cooling.
Taste: @ 10 ppm. Tongue-prickling, with a late cooling effect.
Taste: @ 20 ppm. Tongue-prickling and slightly balsamic, with a late cooling effect.
Possible applications: The latent cooling effect of this material can be used in all types of flavors in which an interesting trigeminal effect is desired, like oral care, alcoholic and nonalcoholic beverages, confections, pharmaceuticals, etc.
➤**Natural Advantage;** *www.natural-advantage.net*

trans-2-Octenal

Source: Bedoukian
FEMA# 3215, CAS# 2548-87-0
Natural occurrence: Bread, fish, potato chips, rice.
Odor: @ 1%. Green, spicy, fatty, cucumberlike and slightly fruity.
Taste: @ 0.5 ppm. Fatty, delicately green and cucumber/melonlike.
Taste: @ 1 ppm. Fatty, fried, slightly oxidized and cucumberlike.
Possible applications: This chemical will help reinforce the profile of some spices, like cumin, vegetable flavors, and especially cucumber and melon flavors like cantaloupe and watermelon. Its fatty, oxidized notes will also contribute to fat replacement flavors, chicken and lamb.
➤**Bedoukian;** *www.bedoukian.com*

2-Hydroxycinnamic acid, natural (synonym: o-*trans*-coumaric acid)

Source: Wen International Inc.
FEMA# 4700, CAS# 614-60-8, Natural
Natural occurrence: Coffee.
Odor: @ 1%. Sweet, spicy, warm, slightly cinnamic, coumarinlike and powdery.
Taste: @ 10 ppm. Sweet, cinnamic and coumarinlike, with a tongue-tingling sensation.
Taste: @ 20 ppm. Sweet, cinnamic and coumarinlike, with a spicy bite.
Possible applications: The sweet, spicy nature of this component can add favorably to the profile of spice flavors. At lower levels, where its "bite" is not obvious, it can also be used in vanilla, honey, coconut, and sweet brown flavors like caramel and maple.
➤**Wen International;** *www.weninternational.com*

2,3-Hexanedione, natural (synonym: acetylbutyryl)

Source: SAFC
FEMA# 2558, CAS# 3848-24-6, Natural
Natural occurrence: Beer, coffee, soy sauce, roast chicken, clam and peach.
Odor: @ 100%. Sweet, buttery, caramellic, fruity, strawberrylike, jammy and cooked.
Taste: @ 8 ppm. Creamy, caramellic, fruity, strawberrylike and jammy.
Taste: @ 12 ppm. Sweet, creamy, caramellic, buttery, strawberrylike and jammy.
Possible applications: Since this material is a homologue of diacetyl, one would expect it to possess buttery notes and be very useful in those types of flavors in which it is used. The additional caramellic notes make it a good choice for caramel, butterscotch, custard, flan, cooked milk and toffee. Other areas where it can be applied are in fruit flavors to add a cooked, jammy note.
➤**SAFC;** *www.safcglobal.com*

3-Pentanethiol

Source: Treatt
FEMA# 4694, CAS# 616-31-9
Natural occurrence: Guava.
Odor: @ 0.1%. Sulfurous, onionlike, savory, meaty with an underlying burnt rubber note.
Taste: @ 0.1 ppm. Fried onionlike, metallic and meaty.
Taste: @ 0.2 ppm. Onionlike, savory, metallic, meaty and brothy.
Possible applications: This is another material with a split personality. The savory, meaty notes make it an easy choice for use in chicken, roast beef, fried onion, garlic, broth, liver and other meat-type flavors, as well those for fat replacement. By virtue of its presence in guava, it might also be regarded for use in that flavor, as well as other tropicals like durian, although at levels less than 0.1 ppm.
➤**Treatt;** *www.treatt.com*

2-Methyl-4-propyl-1,3-oxathiane, natural (synonym: tropathiane)

Source: Axxence
FEMA# 3578, CAS# 67715-80-4, Natural
Natural occurrence: Passion fruit, clary sage.
Odor: @ 1%. Sulfurous, gassy, fatty and radishlike, with a tropical fruit note.
Taste: @ 1 ppm. Tropical fruitlike, sulfurous, onionlike, fatty and fruity.
Taste: @ 2 ppm. Tropical fruitlike, sulfurous, creamy and ripe.
Possible applications: This dual-personality material will find use in savory flavors requiring alliaceous notes like garlic, shallot and onion, as well as fruit flavors, especially tropicals like mango, papaya, passion fruit, cherimoya, lychee, rambutan and pineapple. Its ripe notes will also add a brilliance to non-tropical fruits like white grape, peach, apricot and blends of all the above.
➤**Axxence;** *www.axxence.de*

1-Octen-3-ol, natural

Source: Axxence
FEMA# 2805, CAS# 3391-86-4, Natural
Natural occurrence: Bay leaves, thyme, genet, chamomile, lavender, peppermint, shrimp, tomato, pork, milk and mushroom.
Odor: @ 1%. Raw mushroomlike, waxy and earthy, with a creamy undertone.
Taste: @ 0.5 ppm. Earthy, mushroomlike and milky, with a slight vegetable note.
Taste: @ 1 ppm. Mushroomlike, creamy, brothy and earthy.
Possible applications: On its own, this component is very characteristic of mushrooms and will naturally be at the heart of most of that genre. At very low levels, its creamy qualities will bring depth and naturalness to many dairy flavors, especially fresh and condensed milk, dulce de leche, and sour, fresh and clotted creams. Brie, gorgonzola, St. André and other mold-ripened cheese flavors will be also be enhanced with its use. Other flavors where it will fit well are potato, broths, soups and gravies.
➤**Axxence;** *www.axxence.de*