

## Overview on adopted and published scientific opinions by the European Food Safety Authority on flavouring substances

### **1. Flavouring groups in the evaluation programme of EFSA (situation 1 September 2014)**

- [FGE.01 rev2](#): Branched-chain aliphatic saturated aldehydes, carboxylic acids and related esters of primary alcohols and branched-chain carboxylic acids.
- [FGE.02 rev1](#) : Branched-and straight-chain aliphatic saturated primary alcohols, aldehydes and related esters of primary alcohols and straight-chain carboxylic acids.
- [FGE.03 rev2](#): Acetals of branched-and straight-chain aliphatic saturated primary alcohols and branched- and straight-chain saturated aldehydes, and an orthoester of formic acid.
- [FGE.04](#): 2-Ethylhexyl derivatives
- [FGE.05 rev2](#): Esters of branched- and straight-chain aliphatic saturated primary alcohols and of one secondary alcohol and branched- and straight- chain unsaturated carboxylic acids
- [FGE.06 rev4](#): Straight- and branched-chain aliphatic unsaturated primary alcohols, aldehydes, carboxylic acids and esters
- [FGE.07 rev4](#): Saturated and unsaturated aliphatic secondary alcohols, ketones and esters of secondary alcohols and saturated linear or branched chain carboxylic acids
- [FGE.08 rev5](#): Aliphatic and alicyclic mono-, di-, tri-, and polysulfides with or without additional oxygenated functional groups
- [FGE.09 rev4](#): Secondary alicyclic saturated and unsaturated alcohols, ketones and esters containing secondary alicyclic alcohols
- [FGE.10 rev3](#): Aliphatic primary and secondary saturated and unsaturated alcohols, aldehydes, acetals, carboxylic acids and esters containing an additional oxygenated functional group and lactones
- [FGE.11 rev2](#): Aliphatic dialcohols, diketones and hydroxyketones
- [FGE.12 rev4](#): Primary saturated or unsaturated alicyclic alcohol, aldehyde and esters
- [FGE.13 rev2](#): Furfuryl and furan derivatives with and without additional side-chain substituents and heteroatoms
- [FGE.14 rev1](#): Phenethyl alcohol, aldehyde, acetals, carboxylic acid and related esters
- [FGE.15 rev 2](#): Aryl-substituted saturated and unsaturated primary alcohol, aldehyde, acid and ester derivatives
- [FGE.16 rev2](#): Aromatic ketones
- [FGE.17 rev3](#): Pyrazine derivatives
- [FGE.18 rev2](#): Aliphatic, alicyclic and aromatic saturated and unsaturated tertiary alcohols, aromatic tertiary alcohols and their esters
- FGE.19: Alpha, beta-unsaturated aldehydes and ketones (and precursors for these):  
[See Minutes of AFC panel meeting of 27-29 November 2007, point 9.1.1, page 7](#)
- [FGE.20 rev4](#): Benzyl alcohols, benzaldehydes, a related acetal, benzoic acids and related esters
- [FGE.21 rev4](#): Thiazoles, thiophene, thiazoline and thienyl derivatives
- [FGE.22 rev1](#): Ring-substituted phenolic substances

- [FGE.23 rev4](#): Aliphatic, alicyclic and aromatic ethers including anisole derivatives
- [FGE.24 rev1](#): Pyridine, pyrrole, indole and quinoline derivatives
- [FGE.25 rev2](#): Aliphatic and aromatic hydrocarbons
- [FGE.26 rev1](#): Amino acids
- [FGE.27](#): Alicyclic and aromatic lactones (phthalide)
- [FGE.29](#): Substance from the priority list: Vinylbenzene
- [FGE.30 rev1](#): 2-Methoxy-4-(prop-1-enyl)phenyl 3-methylbutyrate from chemical group 17
- [FGE.31](#): Epoxides
- [FGE.32](#): Flavonoids (Flavanones and dihydrochalcones)
- [FGE.33](#): Six Tetrahydrofuran Derivatives From Chemical Groups 13, 14, 16 and 26
- [FGE.34](#): One tetrahydroquinoline derivative from chemical group 28
- [FGE.35](#): Quinine salts
- [FGE.36](#): Two triterpene glycosides from the priority list
- [FGE.38](#): 3-Butenyl isothiocyanate
- [FGE.40](#): An aromatic derivative of 2-hydroxy-propionamide
- [FGE.42](#): Iron Salts
- [FGE.43](#): Thujyl alcohol
- [FGE.44](#): Cis-2-heptyl-cyclopropanecarboxylic acid
- [FGE.45](#): One tertiary amine from chemical group 28: 1-methylpyrrolidine.
- [FGE.46 rev1](#): Ammonia and two ammonium salts
- [FGE.47 rev1](#): Bicyclic secondary alcohols, ketones and related esters
- [FGE.48](#): 2-Aminoacetophenone
- [FGE.49 rev1](#): Xanthin alkaloids from the priority list (Caffeine and theobromine)

## **2. Flavouring groups evaluated by JECFA and considered by EFSA**

- [FGE.50 rev1](#): Pyrazine derivatives
- [FGE.51 rev1](#): Alicyclic ketones, secondary alcohols and related esters
- [FGE.52](#): Hydroxy- and alkoxy-substituted benzyl derivatives
- [FGE.53 rev1](#): Phenethyl alcohol, aldehyde, acid, and related acetals and esters
- [FGE.54 rev1](#): Benzyl derivatives
- [FGE.55](#): Phenyl-substituted aliphatic alcohols and related aldehydes and esters
- [FGE.56](#): Monocyclic secondary alcohols, ketones and related
- [FGE.57](#): Consideration of two structurally related pulegone metabolites and one ester thereof
- [FGE.58](#): Phenol derivatives structurally related to ring substituted phenolic substances
- [FGE.59 rev1](#): Aliphatic and aromatic ethers
- [FGE.60](#): Eugenol and related hydroxyallylbenzene derivatives
- [FGE.61 rev1](#): Aliphatic acetals
- [FGE.62 rev1](#): Linear and branched-chain aliphatic unsaturated, unconjugated alcohols, aldehyde, acids, and related esters
- [FGE.63 rev2](#): Aliphatic secondary alcohols, ketones and related esters
- [FGE.64](#): Aliphatic acyclic diols, triols and related substances
- [FGE.65](#): Sulfur-substituted furan derivatives used as flavouring agents

- [FGE.66 rev1](#): Furfuryl alcohol and related flavouring agents
- [FGE.67 rev1](#): Furan-substituted aliphatic hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids and related esters, sulfides, disulfides and ethers
- [FGE.68](#): Cinnamyl alcohol and related flavouring agents
- [FGE.69](#): Aromatic substituted secondary alcohols, ketones and related esters
- [FGE.70](#): Aliphatic, alicyclic, linear, alpha,beta-unsaturated, di-and trienals and related alcohols, acids and esters
- [FGE.71](#): Aliphatic, linear alpha, beta-unsaturated aldehydes, acids and related alcohols, acetals and esters
- [FGE.72](#): Aliphatic branched-chain saturated and unsaturated alcohols, aldehydes, acids and related esters
- [FGE.73rev1](#): Alicyclic primary alcohols, aldehydes, acids and related esters
- [FGE.74 rev1](#), rev2: Simple aliphatic sulphides and thiols evaluated by JECFA (61st meeting) structurally related to aliphatic and alicyclic mono-, di-, tri-, and polysulphides with or without additional oxygenated functional groups from Chemical Group 20 evaluated by EFSA in FGE.08
- [FGE.75](#): Tetrahydrofuran and furanone derivatives
- [FGE.76](#): Sulfur-containing heterocyclic compounds
- [FGE.77](#): Pyridine, pyrrole and quinoline derivatives
- [FGE.78 rev1](#): Aliphatic and alicyclic and aromatic hydrocarbons
- [FGE.79](#): Amino acids and related substances
- [FGE.80 rev1](#): Alicyclic, alicyclic-fused and aromatic-fused ring lactones
- [FGE.81](#): Hydroxypropenylbenzenes
- [FGE.82](#): Epoxides
- [FGE.83 rev1](#): 6-keto-1,4-dioxane derivatives substances
- [FGE.84](#): Anthranilate derivatives
- [FGE.85](#): Miscellaneous nitrogen containing flavouring agents
- [FGE.86 rev1](#): Aliphatic and aromatic amines and amides
- [FGE.87 rev1](#): Bicyclic secondary alcohols, ketones and related esters
- [FGE.88](#): Phenol and phenol derivatives
- [FGE.89](#): Phenyl-substituted aliphatic tertiary alcohols and related aldehydes and esters
- [FGE.90](#): Aliphatic, acyclic and alicyclic terpenoid tertiary alcohols and structurally related substances
- [FGE.91rev1](#): Simple aliphatic and aromatic sulphides and thiols
- [FGE.92](#): Aliphatic, acyclic diols, triols and related substances
- [FGE.93](#): Sulphur containing heterocyclic substances
- [FGE.94rev1](#): Aliphatic and aromatic amines and amides
- [FGE.95](#): Aliphatic, linear or branched-chain saturated and unsaturated alcohols, aldehydes, acids and related esters
- [FGE.96](#): Consideration of 88 flavouring substances considered by EFSA for which EU production volumes / anticipated production volumes have been submitted, addendum to FGE. 51, 52, 53, 54, 56, 58, 61, 62, 63, 64, 68, 69, 70, 71, 73, 76, 77, 79, 80, 83, 84, 85, 86 and 87
- [FGE.98](#): Consideration of three ring-unsaturated delta-lactones

### **3. Flavouring groups from flavouring group evaluation FGE.19**

- [FGE.201 rev1](#): 2-Alkylated aliphatic acyclic alpha,beta-unsaturated aldehydes and precursors with or without additional double bonds from chemical subgroup 1.1.2 of FGE.19
- [FGE.202](#): 3-Alkylated aliphatic acyclic alpha,beta-unsaturated aldehydes and precursors with or without additional double bonds from chemical subgroup 1.1.3 of FGE.19
- [FGE.203](#): alpha,beta-Unsaturated aliphatic aldehydes and precursors from chemical subgroup 1.1.4 of FGE.19 with two or more conjugated double bonds and with or without additional non-conjugated double bonds
- [FGE.206](#): 12 alpha,beta-unsaturated ketones and precursors from chemical subgroup 1.2.3 of FGE.19
- [FGE.209](#): one alpha,beta-unsaturated aldehyde from chemical subgroup 2.3 of FGE.19
- [FGE.210](#): alpha- beta-Unsaturated alicyclic ketones and precursors from chemical subgroup 2.4 of FGE 19
- [FGE.211](#): one alpha,beta-unsaturated ketone and three precursors from chemical subgroup 2.5 of FGE.19 by EFSA
- [FGE 212 rev1](#): alpha,beta-Unsaturated alicyclic ketones and precursors from chemical subgroup 2.6 of FGE.19
- [FGE 213](#): alpha,beta-Unsaturated alicyclic ketones and precursors from chemical subgroup 2.7 of FGE.19
- [FGE.214](#): alpha,beta-Unsaturated aldehydes and precursors from chemical subgroup 3.1 of FGE.19: Cinnamyl derivatives
- [FGE.216](#): alpha,beta-Unsaturated aldehydes from chemical subgroup 3.3 of FGE.19: 2-Phenyl-2-alkenals
- [FGE 217](#): 16 alpha,beta-Unsaturated aldehydes and precursors from chemical subgroup 4.1 of FGE.19: Lactones
- [FGE 218 rev1](#): alpha,beta-Unsaturated aldehydes and precursors from chemical subgroup 4.2 of FGE.19: Furfural derivatives
- [FGE 220 rev1](#): alpha,beta-Unsaturated aldehydes and one precursor from chemical subgroup 4.4 of FGE.19: 3(2H)-Furanones
- [FGE.222](#): alpha,beta-Unsaturated furyl derivatives with the  $\alpha,\beta$ -unsaturation in the side chain from subgroup 4.6 of FGE.19
- [FGE.226](#): Consideration of genotoxicity data on one  $\alpha,\beta$ -unsaturated aldehyde from chemical subgroup 1.1.1(b) of FGE.19

### **4. New flavouring evaluation groups**

- [FGE.300](#): One cyclo-aliphatic amide from chemical group 33
- [FGE.301](#): A sulphur substituted pyrimidin-derivative and its hydrochloride salt
- [FGE.303](#): Spilanthol from chemical group 30
- [FGE.308](#): Glucose Pentaacetate and Sucrose Octaacetate
- [FGE.309](#): Sodium Diacetate
- [FGE.310](#): Rebaudioside A